WEST Search History

DATE: Sunday, December 01, 2002

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USOC; PLUR=YES; OP=ADJ		
L6	l3 and L5	11	L6
L5	l2 and l4	108	L5
L4	essential oil or volatile oil or aromatic oil	4224	L4
L3	patch or plaster or ointment	26014	L3
L2	menthol	985	L2
L1	l-menthol or l-mentol	10	L1

END OF SEARCH HISTORY

WEST Search History

DATE: Sunday, December 01, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L23	l21 and L22	1	L23
L22	patch or poultice or plaster or ointment or cream or salve or paste or lotion	182157	L22
L21	l19 and L20	20	L21
L20	essential oil or volatile oil or aromatic oil	5626	L20
L19	l-menthol or l-mentol	368	L19
DB=USPT,PGPB; PLUR=YES; OP=ADJ			
L18	l16 and L17	20	L18
L17	patch or plaster	58330	L17
L16	l6 and L15	100	L16
L15	l12 and L14	189	L15
L14	$2menthol.clm. or $2mentol.clm.	738	L14
L13	l9 and L12	200	L13
L12	l10 or L11	10355	L12
L11	aromatic oil	2643	L11
L10	essential oil or volatile oil	7824	L10
L9	l7 and L8	958	L9
L8	ointment	29241	L8
L7	l5 and L6	2588	L7
L6	external or patch or ointment or cream or plaster or salve or lotion	791566	L6
L5	l2 and l3	4678	L5
L4	l2 and l3L3	0	L4
L3	oil or essential oil or volatile oil	489640	L3
L2	$2menthol or $2mentol	5824	L2
L1	$1menthol or $1mentol	5824	L1

END OF SEARCH HISTORY

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PASSWORD:
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                                                      ENTRY    SESSION
FULL ESTIMATED COST                                  102.14     172.92

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -5.31      -7.17

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     (FILE 'HOME' ENTERED AT 15:52:11 ON 01 DEC 2002)

     FILE 'ADISALERTS, ADISINSIGHT, ADISNEWS, BIOSIS, BIOTECHNO, CANCERLIT,
     CAPLUS, CEN, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, DRUGNL, DRUGU, EMBAL,
     EMBASE, ESBIOBASE, IFIPAT, IPA, JICST-EPLUS, KOSMET, LIFESCI, MEDICONF,
     MEDLINE, NAPRALERT, NLDB, PASCAL, ...' ENTERED AT 15:52:32 ON 01 DEC 2002
L1          160 S MENTHOL (S) PATCH
L2        61332 S ESSENTIAL OIL OR AROMATIC OIL OR VOLATILE OIL
L3            9 S L2 AND L1
L4            9 DUP REM L3 (0 DUPLICATES REMOVED)

     FILE 'MEDLINE, BIOSIS, EMBASE, EMBAL, CA, CAPLUS, USPATFULL' ENTERED AT
     15:59:13 ON 01 DEC 2002
L5        26603 S MENTHOL
L6       274443 S POULTICE OR PATCH OR PLASTER OR OINTMENT
L7        53299 S ESSENTIAL OIL OR VOLATILE OIL OR AROMATIC OIL
L8         2728 S L5 AND L7
L9          130 S L8 AND L6
L10         117 DUP REM L9 (13 DUPLICATES REMOVED)
L11      230848 S PATCH OR PLASTER OR POULTICE
L12          41 S L10 AND L11

=> d l12 1-41 ibib, kwic

L12  ANSWER 1 OF 41 · CA  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         137:83647  CA
TITLE:                    Thermal poultices having long-lasting effects
INVENTOR(S):              Goto, Hajime; Iida, Norio
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PATENT ASSIGNEE(S): Lion Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002193794	A2	20020710	JP 2000-404647	20001227

OTHER SOURCE(S): MARPAT 137:83647

AB The invention relates to a pharmaceutical **patch** providing long-lasting thermal effect from the beginning of the application, wherein the **patch** consists of a knitted fabric base made with multifilament yarn of thermoplastic synthetic polymer, an adhesive compn. contg. an agents having thermal effect and an oily component, and a peelable film. An adhesive compn. contg. capsaicin 0.005, peppermint oil 0.2, castor oil 1, l-**menthol** 0.1, indomethacin 0.5, sodium polyacrylate 6, carboxyvinyl polymer 1, gelatin 0.5, sodium CM-cellulose 3, polyvinyl alc. 1, magnesium aluminum silicate 0.3, glycerin 20, propylene glycol 5, polyethylene monostearate 1, citric acid 1, disodium EDTA 0.1, and water balance to 100 % was prepd. The adhesive compn. was applied on a base fabric formed with polyethylene multifilament yarn, and covered with a polypropylene film to obtain a thermal poultices.

ST **poultice** thermal capsaicin **essential oil** multifilament fabric

L12 ANSWER 2 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 137:52365 CA
TITLE: Adhesive **patch** containing decongestants for the usage on clothing
PATENT ASSIGNEE(S): Labtec Gesellschaft fuer Technologische Forschung und Entwicklung mbh, Germany; Apr Applied Pharma Research S.A.
SOURCE: Ger. Offen., 4 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10063378	A1	20020620	DE 2000-10063378	20001219
WO 2002049623	A2	20020627	WO 2001-EP14945	20011218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002040847	A5	20020701	AU 2002-40847	20011218

PRIORITY APPLN. INFO.: DE 2000-10063378 A 20001219
WO 2001-EP14945 W 20011218

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Adhesive **patch** containing decongestants for the usage on clothing

AB The invention concerns an adhesive **patch** to be used on clothing that contains decongestants for the upper respiratory pathways; the compn.

of the etheric oils is selected in a way that after an initial dosage of 100-300 mg during the first two hours a maintaining dosage of 10-30 mg is released for the following 6 h. Fleece is impregnated with the oils, e.g. eucalyptus oil: camphor = 3:1. Adhesives are acrylic polymers.

ST adhesive **patch** clothing decongestant **essential oil** respiratory tract disease

IT Adhesives
Clothing
Decongestants
Nonwoven fabrics
(adhesive **patch** contg. decongestants for usage on clothing)

IT Acrylic polymers, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adhesive **patch** contg. decongestants for usage on clothing)

IT Respiratory tract
(disease; adhesive **patch** contg. decongestants for usage on clothing)

IT Essential oils
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(eucalyptus; adhesive **patch** contg. decongestants for usage on clothing)

IT Drug delivery systems
(inhalants, adhesive **patch**; adhesive **patch** contg. decongestants for usage on clothing)

IT 76-22-2, Camphor
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adhesive **patch** contg. decongestants for usage on clothing)

IT 79-92-5, Camphene 89-83-8, Thymol 98-55-5, .alpha.-Terpineol 127-91-3, .beta.-Pinene 138-86-3, Limonene 470-82-6, Eucalyptol 1490-04-6, **Menthol**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adhesive **patch** contg. decongestants for usage on clothing)

IT 13963-57-0, Aluminum acetylacetonate
RL: CAT (Catalyst use); USES (Uses)
(crosslinker; adhesive **patch** contg. decongestants for usage on clothing)

L12 ANSWER 3 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 136:359694 CA
TITLE: Skin-friendly plasters for the transdermal administration of essential oils
INVENTOR(S): Woeller, Karl-Heinz
PATENT ASSIGNEE(S): Beiersdorf Ag, Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10056011	A1	20020516	DE 2000-10056011	20001111
WO 2002038136	A2	20020516	WO 2001-EP12604	20011031
W: AU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
AU 2002016987	A5	20020521	AU 2002-16987	20011031

PRIORITY APPLN. INFO.: DE 2000-10056011 A 20001111
WO 2001-EP12604 W 20011031
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB The invention concerns patches for the controlled transdermal release of essential oils that are composed of a flexible cover layer, an adhering matrix contg. the active substance; the matrix is free of mineral oils and adhesives and is solvent-free prepd. from polyisobutylene, amorphous poly-.alpha.-olefin, non-sol. hydrophilic fillers by using hot-melt technol. below 100 .degree.C. The patches are skin-friendly. Thus the following compn. was prepd. (wt./wt.%): Vistanex LM MH (high m.w. polyisobutylene) 32.40; Vistanex MM L80 (low m.w. polyisobutylene) 6.8; Eastoflex PLS E1003D (poly-.alpha.-olefin) 16.9; Avicel PH 101 39.10; **menthol** 5.00.

ST **essential oil** transdermal **patch** polyisobutylene

IT 1490-04-6, **Menthol** 9003-27-4, Polyisobutylene 9004-34-6, Avicel PH 101, biological studies 9010-79-1, Eastoflex E 1003
RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(skin-friendly plasters for transdermal administration of essential oils)

L12 ANSWER 4 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 135:322744 CA
TITLE: Therapeutic antitussive **patch** containing camphor and **menthol** and a liquid or gel organic compound as a carrier
INVENTOR(S): Goon, David J. W.; Rolf, David
PATENT ASSIGNEE(S): Lectec Corporation, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001078691	A1	20011025	WO 2000-US12969	20000512

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-548526 A 20000413
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Therapeutic antitussive **patch** containing camphor and **menthol** and a liquid or gel organic compound as a carrier

AB A vapor permeable adhesive **patch** is provided wherein the **patch** includes a porous polymer backing having a front side and a back side. The **patch** also includes a therapeutic formulation located on the front side of the backing. The backing includes a flexible sheet of water insol. porous material. The therapeutic formulation includes a combination of a medicament useful for relieving coughing, a liq. or gel-like, cosmetically acceptable org. compd. to act as a carrier for the medicament and at least partially masks the odor of the medicament, and a pressure sensitive adhesive. The liq. or gel-like,

cosmetically acceptable org. compd. can be a fragrance. For example, a vapor permeable adhesive **patch** formulation contained (by wt.) **menthol** 2.8%, camphor 4.0%, propylene glycol 2.5%, eucalyptus oil 0.7%, grape fragrance 1.0%, glycerin 1.0%, polyethylene oxide 3.0%, water 83.0%, and a pressure sensitive adhesive 2.0%.

ST camphor **menthol essential oil** essence
transdermal **patch**; antitussive **patch** camphor
menthol eucalyptus turpentine oil

IT Natural products, pharmaceutical
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aloe; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Antitussives
Cotton fibers
Essences
Humectants
Odor and Odorous substances
Perfumes
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Turpentine oil
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Lanolin
Polyamide fibers, biological studies
Polyester fibers, biological studies
Polymers, biological studies
Polyolefin fibers
Polyoxyalkylenes, biological studies
Polyureas
Polyurethane fibers
Polyurethanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Fibers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cellulosic; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Essences
(cherry; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Cherry
Grape
(essence; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(eucalyptus; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Essences
(grape; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyhydric; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Drug delivery systems
(transdermal; antitussive **patch** contg. camphor and

menthol in liq. or gel carrier)

IT 76-22-2, Camphor 89-78-1, **Menthol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT 50-70-4, Sorbitol, biological studies 50-81-7, Vitamin C, biological studies 56-81-5, Glycerin, biological studies 57-55-6, Propylene glycol, biological studies 58-95-7, Vitamin E acetate 79-10-7D, Acrylic acid, esters, copolymers 107-21-1, Ethylene glycol, biological studies 112-27-6, Triethylene glycol 112-60-7, Tetraethylene glycol 1406-18-4, Vitamin E 9000-01-5, Gum acacia 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-40-2, Locust bean gum 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9003-01-4, Poly(acrylic acid) 9003-05-8, Polyacrylamide 9003-39-8, Polyvinyl pyrrolidone 9004-32-4, Carboxymethyl cellulose 9050-36-6, Maltodextrin 11138-66-2, Xanthan gum 24937-72-2, Poly(maleic anhydride) 25322-68-3, Polyethylene oxide 26099-09-2, Polymaleic acid 27119-07-9 66676-63-9, Carboxypropyl cellulose
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT 89-83-8, Thymol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor, **menthol** and thymol in liq. or gel carrier)

L12 ANSWER 5 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 135:97538 CA
TITLE: Device for diffusing a volatile product and preparation method
INVENTOR(S): Pignot, Cyrille; Artaud, Laurent
PATENT ASSIGNEE(S): Laboratoire Ethymed, Fr.
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001049331	A2	20010712	WO 2000-FR3744	20001229
WO 2001049331	A3	20020523		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

FR 2803204	A1	20010706	FR 1999-16732	19991230
FR 2803204	B1	20020503		

PRIORITY APPLN. INFO.: FR 1999-16732 A 19991230

AB The invention concerns a device for diffusing a volatile product in the atm. in particular a product to be applied on the skin, comprising a matrix for diffusing the volatile product, said matrix based on a ethylene/vinyl acetate copolymer (EVA). The invention is characterized in that said copolymer represents an melt index ranging between 0.5 and

20g/10 min, measured in accordance with the ASTM D 1238 std., and a m.p. ranging between 65 and 90 .degree.C. Said device can be obtained by extruding an EVA powder, impregnated with volatile product. A 5-layer anti-mosquito adhesive **patch** was prepd. contg. ethylene-vinyl acetate copolymer 80, and citrus oil 20% in the matrix.

ST **volatile oil** ethylene vinyl acetate copolymer; antimosquito adhesive **patch** citrus oil EVA

IT 76-22-2, Camphor 89-78-1, **Menthol** 6683-19-8, irganox 1010 9003-07-0, Polypropylene 25038-32-8, Isoprene styrene copolymer 25766-18-1, Dercolyte A 115 188204-04-8, durotak 387-2054
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(device for diffusing volatile product and prepn. method)

L12 ANSWER 6 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 135:51093 CA
TITLE: Drugs for relieving hemicrania
INVENTOR(S): Yokoyama, Hideakira; Hamamoto, Hidetoshi
PATENT ASSIGNEE(S): Teikoku Seiyaku Co., Ltd., Japan; Rohto Pharmaceutical Co., Ltd.
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001043736	A1	20010621	WO 1999-JP7008	19991214
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1170006	A1	20020109	EP 1999-959803	19991214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: WO 1999-JP7008 W 19991214
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

AB Drugs having an effect of relieving hemicrania contain l-**menthol** and an **essential oil** exclusively as the active ingredients. More particularly, ointments and patches having an effect of relieving hemicrania to be topically administered for relieving hemicrania, are prepd. by blending l-**menthol** and an **essential oil** with **ointment** compns. contg. a water-sol. polymer, a polyhydric alc. and water. An **ointment** contained polyacrylic acid 1, Na polyacrylate 5, Na CMC 5, gelatins 0.4, polyvinyl alc. 0.2, tartaric acid 0.2, Na edetate 0.1, glycerin 22, Al(OH)3 0.3, Polysorbate 80 0.1, castor oil 0.5, methylparaben 0.1, l-**menthol** 0.3, peppermint oil 0.2, and distd. water q.s. to 100 %.

ST hemicrania treatment **ointment menthol essential oil**; **patch** hemicrania treatment **menthol essential oil**; peppermint oil **menthol ointment** migraine treatment

IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(juniper; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)

IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lavender; topical prepns. contg. **menthol** and essential oils

for relieving hemicrania)
IT Headache
(migraine; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT Drug delivery systems
(ointments; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peppermint; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT Alcohols, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyhydric; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(rose; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(rosemary; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT Drug delivery systems
(tapes; topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT 2216-51-5
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical prepns. contg. **menthol** and essential oils for relieving hemicrania)
IT 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9003-04-7, Sodium polyacrylate 9004-32-4, sodium CMC
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical prepns. contg. **menthol** and essential oils for relieving hemicrania)

L12 ANSWER 7 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 132:227479 CA
TITLE: Patches containing skin irritants and olfactory sense stimulants to treat impotence and to boost stamina
INVENTOR(S): Iwakura, Taiichiro
PATENT ASSIGNEE(S): Suzuki Yushi Kogyo K. K., Japan; Mori Shiko Boeki K. K.; I-tech Y. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000086504	A2	20000328	JP 1998-251721	19980907

AB The title patches to apply on the lower abdomen, lower backs, back of the knees, and the soles, comprise (1) skin irritants selected from the group consisting of Capsicum annuum exts., capsaicine, nonylic acid vanillylamide, l-**menthol**, dl-**menthol**, d-camphor, dl-camphor, turpentine oil, mustard seed oil, winter green oil, and Me salicylate and (2) olfactory sense stimulants selected from the group consisting of basil oil, neroli oil, rose oil, and ylang ylang oil.

ST impotence **patch essential oil** stimulant; stamina increase **patch essential oil** stimulant

IT 76-22-2, dl-Camphor 89-78-1, dl-**Menthol** 119-36-8, Methyl salicylate 404-86-4, Capsaicine 464-49-3 2216-51-5 2444-46-4, Nonylic acid vanillylamide
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(patches contg. skin irritants and olfactory sense stimulants to treat impotence and to boost stamina)

L12 ANSWER 8 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 127:298778 CA
TITLE: Aqueous adhesive tapes
INVENTOR(S): Koide, Michimasa
PATENT ASSIGNEE(S): Lion Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09263546	A2	19971007	JP 1996-301327	19961025
JP 3175607	B2	20010611		

PRIORITY APPLN. INFO.: JP 1996-28594 A 19960123

AB Skin-compatible, aq. adhesive tapes showing enhanced edema-inhibiting activity comprise refrigerants and diuretic essential oils and/or plant exts. An adhesive **patch** contained polyacrylic acid 4.5, poly(sodium acrylate) 1.5, CM-cellulose sodium salt 4.0, glycerin 15.0, 1,3-propanediol 5.0, aluminum hydroxide 0.1, synthetic hydrotarcite 0.06, kaolin 6.0, l-**menthol** 0.2, sage oil 0.006 and purified water to 100 parts.

ST aq adhesive tape **essential oil**; plant ext aq adhesive tape

L12 ANSWER 9 OF 41 CA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 85:10419 CA
TITLE: Water dispersible polyurethane varnish for electrodeposition
INVENTOR(S): Matsui, Ichiro; Tanaka, Masayuki; Ohhashi, Kiyonobu
PATENT ASSIGNEE(S): Teikoku Kasei Co., Ltd., Japan
SOURCE: Japan., 3 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 49048728 B4 19741223 JP 1971-51993 19710713

AB An aq. soln. of glycerol or propylene glycol, gelatin, poly(vinyl alc.) [9002-89-5], deliquescent alk. earth metal salts, and surfactants is emulsified with a vinyl acetate resin emulsion, followed by adding kaolin and **essential oil** components, and the mixt. is spread over pieces of cloth and covered with polyethylene films to give stable moist poultices for the treatment of inflammations, bruises, and sprains. Thus, a prepn. contained glycerol 80, gelatin 80, poly(vinyl alc.) 20, H2O 130, MgCl2 60, Tween 80 20, vinyl acetate resin emulsion 70, kaolin 500, and **menthol**, Mentha oil, camphor, and Me salicylate 40 parts.

ST **poultice** polyvinyl alc; vinyl acetate polymer **poultice**

IT 9002-89-5 9003-20-7
RL: BIOL (Biological study)
(**poultice** compns. contg.)

L12 ANSWER 10 OF 41 USPATFULL

ACCESSION NUMBER:	2002:181384 USPATFULL
TITLE:	Skin sanitizing compositions
INVENTOR(S):	Sine, Mark Richard, Morrow, OH, United States Wei, Karl Shiqing, Mason, OH, United States Jakubovic, David Andrew, Staines, UNITED KINGDOM Thomas, Cheyne P., Highland Heights, KY, United States Dodd, Michael Thomas, Florence, KY, United States Putman, Christopher Dean, West Chester, OH, United States
PATENT ASSIGNEE(S):	The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6423329	B1	20020723
APPLICATION INFO.:	US 2000-504286		20000215 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-321291, filed on 27 May 1999 Continuation-in-part of Ser. No. US 1999-249717, filed on 12 Feb 1999		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-120098P	19990216 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Page, Thurman K.
ASSISTANT EXAMINER:	Howard, S.
LEGAL REPRESENTATIVE:	Dressman, Marianne, Little, Darryl C., Rosnell, Tara M.
NUMBER OF CLAIMS:	25
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT:	1336

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . actives, referred to as natural essential oils. These actives derive their names from their natural occurrence in plants. Typical natural **essential oil** antibacterial actives include oils of anise, lemon, orange, rosemary, wintergreen, thyme, lavender, cloves, hops, tea tree, citronella, wheat, barley, lemongrass, cedar leaf, cedarwood, cinnamon, fleagrass, geranium, sandalwood, violet, cranberry, eucalyptus, vervain, peppermint, gum benzoin, basil, fennel, fir, balsam, **menthol**, ocmea origanum, Hydastis carradensis, Berberidaceae daceae, Ratanhiae and Curcuma longa. Also included in this class of natural essential oils are. . . . These chemicals include, but are not limited to anethol, catechole, camphene, carvacol, eugenol, eucalyptol, ferulic acid, farnesol, hinokitiol, tropolone, limonene, **menthol**, methyl salicylate, thymol, terpineol, verbenone, berberine, ratanhiae extract, caryophellene oxide, citronellic acid, curcumin, nerolidol and geraniol.

SUMM . . . selected to provide the desired level of consumer perceived sensation and can be modified as desired. Suitable sensate technologies include **menthol**, eucalyptus, 3-1-menthoxy propane-1,2-diol, N-substituted-p-menthane-3-carboxamides and acyclic carboxamides.

SUMM . . . as hydrocortisone, methylprednisolone, dexamethasone, triamcinolone acetconide, and desoxametasone; anesthetics such as benzocaine, dyclonine, lidocaine and tetracaine; antipruitics such as camphor, **menthol**, oatmeal (colloidal), pramoxine, benzyl alcohol, phenol, panthenol, soluble chitosan and resorcinol. Mixtures of the irritation reducing agents can also be. . .

SUMM When additional actives are present, the compositions of the present invention can be applied by use of a **patch**. Such an approach is particularly useful for problem skin areas needing more intensive treatment or for the transderamal delivery of drugs. The **patch** can be occlusive, semi-occlusive or non-occlusive. The compositions and actives of the present invention can be contained within the **patch** or be applied to the skin prior to application of the **patch**. The **patch** can also include additional actives such as chemical initiators for exothermic reactions such as those described in PCT application WO 9701313 to Burkett et al. Preferably the **patch** is applied at night as a form of night therapy. Examples of useful transdermal systems are described in U.S. Pat.. . . in their entirety. It is understood, however, that such actives can be delivered using the present invention even absent a **patch**.

CLM What is claimed is:

. . . 16. A skin sanitizing composition according to claim 15, wherein the skin sensate is selected from the group consisting of **menthol**, eucalyptus, 3-1-menthoxy propane-1,2-diol, N-substituted-p-menthane-3-carboxamides and acyclic carboxamides.

L12 ANSWER 11 OF 41 USPATFULL

ACCESSION NUMBER:	2002:129632 USPATFULL			
TITLE:	Adhesive **plaster** with microcapsules containing essences, and method for its preparation			
INVENTOR(S):	Pinna, Fausto, Milan, ITALY Pinna, Marco, Varese, ITALY			
PATENT ASSIGNEE(S):	Biofarm S.R.L., Milan, ITALY (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6399192	B1	20020604	
	WO 9857613		19981223	
APPLICATION INFO.:	US 1999-445455		19991216	(9)
	WO 1999-EP9800416		19990126	
			19991216	PCT 371 date
	NUMBER		DATE	
PRIORITY INFORMATION:	IT 1997-MI1430		19970618	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	GRANTED			
PRIMARY EXAMINER:	Seidleck, James J.			
ASSISTANT EXAMINER:	Bagwell, Melanie D.			
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.			
NUMBER OF CLAIMS:	12			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 1 Drawing Page(s)			
LINE COUNT:	270			

TI Adhesive **plaster** with microcapsules containing essences, and method for its preparation

AB Adhesive **plaster** that may be applied on human skin and that has a number of microcapsules applied on its surface destined to. . . by the microcapsules when the latter burst as a result of friction, the

said microcapsules being applied on the adhesive **plaster** by means of silk-screen printing and with the use of water-soluble resins.

SUMM The subject of the present invention is an adhesive **plaster** that may be applied on the skin and that has its surface destined to remain exposed to the air treated. . .

DETD Such an adhesive **plaster** may be kept exposed to the air for a long time without losing its own characteristics described above. The **plaster** may be of any traditional shape; for example, it may be made up of a thin strip of fabric which. . . breathing. In this case, the bursting of the micro-capsules may be caused voluntarily by the person who wears the said **plaster**, for example in order to obtain the release of a balsamic essence.

DETD The adhesive **plaster** according to the invention comprises a flexible resistant substrate, on one surface of which is applied an adhesive that is. . .

DETD . . . (in particular acrylic and/or polyvinylic resins). An aromatic essence is mixed to these resins so as to bestow on the **plaster** the same scent that will be obtained when the micro-capsules burst. The micro-capsules have a diameter of between 80 and. . .

DETD The adhesive **plaster** according to the invention is obtained with a method characterized in that micro-capsules are prepared which enclose liquid essences. Then. . .

DETD As essences that may be enclosed inside the micro-capsules, practically any **essential oil** may be used (either individually or mixed with other essential oils), such as eucalyptol, Scots pine, mugo pine, **menthol**, mint, orange blossom, lavender, citronella, paciulli, sage, ylang ylang, etc.

DETD . . . weight of eucalyptol and one part in weight of Scots pine or mugo pine, or else of two parts of **menthol** and one part of mint.

DETD . . . fabric or made of a thin sheet of synthetic material) destined to form the resistant substrate from which the desired **plaster** will then be punched out, after a film of adhesive (capable of securing the substrate to the skin of the user of the **plaster**) coated with a protective sheet of siliconized paper or the like has been applied on the other surface.

DETD Assuming the aim is to prepare a **plaster** with deodorant aroma:

DETD As substrate of the **plaster**, polyester fabric 1 (FIG. 1) is used, which is sufficiently soft and has a fine weft, and on one surface. . . which has been previously applied an adhesive layer 2 (for example, consisting of an acrylic adhesive) capable of causing the **plaster** to adhere to the skin, protected by a sheet 3 of siliconized paper. The substrate thus prepared may have the. . .

DETD . . . has been found that the involuntary movement of the arms causes an automatic rubbing of the free surface of the **plaster**; this tends to cause progressive bursting of the micro-capsules, thus allowing the odoriferous essences to be released gradually. It has been found that the **plaster** described above maintains its deodorant function in an optimal manner for approximately 8 hours.

DETD . . . micro-capsules present in the layer 9 are burst as a result of voluntary rubbing of the external surface of the **plaster**, thus causing the odoriferous or balsamic substances enclosed therein to be released.

CLM What is claimed is:

1. Adhesive **plaster** with microcapsules enclosing essences, comprising a flexible and resistant substrate, on one surface of which is applied an adhesive capable. . .

2. Adhesive **plaster** according to claim 1, wherein said micro-capsules are anchored to the surface of the said substrate by a water-soluble resin.

. . .

3. Adhesive **plaster** according to claim 2, wherein said resin is selected from the group consisting of acrylic resins and polyvinyl resins.

4. Adhesive **plaster** according to claim 2, wherein said water-soluble resin is mixed with at least one aromatic essence.

5. Adhesive **plaster** according to claim 1, wherein said essence is selected from the group consisting of aromatic essences, balsamic essences, and deodorant. . .
6. Adhesive **plaster** according to claim 1, wherein the protective sheet comprises siliconized paper.

7. Adhesive **plaster** according to claim 1, wherein said microcapsules have a diameter of between 120 and 140 micron.

8. A method comprising adhering the adhesive **plaster** according to claim 1 underneath the armpits.

9. A method comprising adhering the adhesive **plaster** according to claim 1 to the nose at a location capable of keeping the nostrils dilated.

L12 ANSWER 12 OF 41 USPATFULL

ACCESSION NUMBER:	2002:66733 USPATFULL		
TITLE:	Device for the diffusion of a volatile product and preparation process		
INVENTOR(S):	Pignot, Cyrille, Meudon, FRANCE Artaud, Laurent, Joinville Le Pont, FRANCE		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002037385	A1	20020328
APPLICATION INFO.:	US 2001-870940	A1	20010601 (9)
	NUMBER		DATE
PRIORITY INFORMATION:	US 2000-209990P		20000608 (60)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Stephen B. Maebius, FOLEY & LARDNER, 3000 K Street, N.W., Suite 500, Washington, DC, 20007-5109		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	367		

SUMM . . . of the matrix when the latter loses its charge of volatile product and consequently to obtain better hold of the **patch** on the skin.

SUMM [0028] The adhesive which makes it possible to maintain the **patch** on the skin (d) can, depending on the situation, be an acrylic medical adhesive (e.g. Duro-tak.RTM. 387-2054, National Starch) or. . .

SUMM . . . insect repellents of natural or synthetic origin, essential oils, fragrances, scenting compositions, terpene derivatives which can be inhaled, such as **menthol**, camphor or eucalyptol, and their mixtures.

SUMM [0032] The volatile product is an **essential oil** chosen from essential oils of citronella, of geranium, of cedar wood, of lavender, of eucalyptus, of lemon grass, of yarrow,. . .

DETD [0050] An anti-mosquito **patch** which diffuses citronella is prepared composed of 5 layers: a matrix comprising the essence of citronella, an adhesive for attaching. . .

DETD [0091] 1) Control of the unit charge per **patch**: 18 mg

CLM What is claimed is:

. . . insect repellents of natural or synthetic origin, essential oils,

fragrances, scenting compositions, terpene derivatives which can be inhaled, such as **menthol** or camphor, and their mixtures.

11. The device as claimed in one of the preceding claims, wherein the volatile product is an **essential oil** chosen from essential oils of citronella, of geranium, of cedar wood, of lavender, of eucalyptus, of lemon grass, of yarrow,. . .

L12 ANSWER 13 OF 41 USPATFULL

ACCESSION NUMBER:	2001:229237 USPATFULL
TITLE:	Oral transmucosal delivery of drugs or any other ingredients via the inner buccal cavity
INVENTOR(S):	Acharya, Ramesh N., Salt Lake City, UT, United States Baker, Joseph L., Salt Lake City, UT, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001051186	A1	20011213
APPLICATION INFO.:	US 2001-774271	A1	20010130 (9)

RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-285018, filed on 1 Apr 1999, GRANTED, Pat. No. US 6210699
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	M WAYNE WESTERN, THORPE, NORTH & WESTERN, P O BOX 1219, SANDY, UT, 840911219
NUMBER OF CLAIMS:	47
EXEMPLARY CLAIM:	1
LINE COUNT:	980

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . herb extracts or minerals, and mixtures thereof. For example, odorants suitable for masking or refreshing objectionable breath including peppermint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof. Active substances to be delivered by the device of. . .

SUMM . . . can be used as part of a system for delivery of substances through the oral mucosa (as a buccal transmucosal **patch**), for delivery of substances into the oral cavity itself, or the combination of both via a laminated configuration, which may be either in the form of a tablet or **patch**. Both patches and tablets are prepared such that the mucoadhesive layer contains the non-plasticized PVP adhesive which may or may. . .

SUMM [0041] For example, odorants suitable for masking or refreshing objectionable breath include agents such as mint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, peppermint, lime and any mixtures thereof. Other substances which are suitable for being transmucosally. . .

SUMM . . . which may also contain an active substance. The systems may be in either the form of a tablet or a **patch**. Bilayer tablets are made by classical bilayer tablet compression techniques on a suitable press. Layers of a bilayer tablets consisting. . .

SUMM [0046] In some embodiments the active substance is an odorant such as an **essential oil** of a plant material, a refined fraction of an **essential oil**, or a combination of the chief aromatic constituents of an **essential oil**. Preferably, the odorant is a mint such as obtained from oils of peppermint, spearmint or wintergreen. Any other suitable odorant or masking agent may also be used such as **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof. In other embodiments the active substances may be saliva. . .

DETD . . . tablet for breath refreshening formulated according to the method described in Example 1. The active substance in this example is **menthol** mint (50% by weight in active the layer and 30% by weight in the adhesive layer). The adhesive layer contains. . .

DETD [0069] OTM Tablet of **Menthol** Mint for Breath Refreshening

Active Layer	% w/w	Adhesive Layer	% w/w
Menthol Mint 30.00	50.00	**Menthol** Mint	
Mannitol	38.30	Mannitol	34.25
Acelsulfame K	1.00	Povidone K90	25.00
Povidone K30	10.00	Povidone K30	10.00
FD&C Yellow. . .			

DETD . . . long acting breath refreshening formulated according to the method described in Example 1. The active substance in this example is **menthol** mint (40% by weight in the active layer and 30% by weight in the adhesive layer). The adhesive layer contains. . .

DETD [0073] OTM Tablet of **Menthol** Mint Long Acting

Active Layer	% w/w	Adhesive Layer	% w/w
Menthol Mint 30.00	40.00	**Menthol** Mint	
Mannitol	49.30	Mannitol	14.25
Acelsulfame K	1.00	Povidone K90	30.00
Carbomer 934P	4.00	Povidone K30	10.00
Methocel	5.00. . .		

CLM What is claimed is:

. . . according to claim 9 wherein the breath freshener is an odorant member selected from the group consisting of peppermint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof.

. . . according to claim 33 wherein the breath freshener is an odorant member selected from the group consisting of peppermint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof.

L12 ANSWER 14 OF 41 USPATFULL

ACCESSION NUMBER:	2001:212435 USPATFULL
TITLE:	Prevention of ovarian cancer by administration of products that induce biologic effects in the ovarian epithelium
INVENTOR(S):	Rodriguez, Gustavo C., Durhman, NC, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044431	A1	20011122
APPLICATION INFO.:	US 2001-798453	A1	20010302 (9)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-528963, filed on 21 Mar 2000, PENDING
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	Raymond N. Nimrod, Suite 1000, 200 South Michigan Avenue, Chicago, IL, 60604
NUMBER OF CLAIMS:	33
EXEMPLARY CLAIM:	1
LINE COUNT:	4240

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . on; 1 week off

				(Androgen)
mg				
Estrace	Estradiol		.5-2	--
--	3 weeks on; 1 week off			

(tablets)
Climara Estradiol 0.025/ --
-- Continuous
(patch) (four different patches; 0.051
dosages per day) 0.075/
0.10 mg
released
per day

SUMM . . . by a limonene synthase catalyzed reaction where geranylpyrphosphate undergoes cyclization. Many other oxygenated monocyclic monoterpenes such as perillyl alcohol, perillaldehyde, **menthol**, carveol and carvone are then formed from limonene.

SUMM . . . cream, fruit juices, pudding, and an assortment of baked goods additional flavor. Because of its high levels of d-limonene, orange **essential oil** is commercially available food flavoring agent. Humans therefore regularly consume or are exposed to monoterpenes in both their diet and. . .

SUMM [0158] Other common monoterpenes include sobreol and **menthol**. In general, monoterpenes and their derivatives have been shown marked chemopreventive activity.

L12 ANSWER 15 OF 41 USPATFULL

ACCESSION NUMBER: 2001:187019 USPATFULL

TITLE: Adhesively applied external nasal strips and dilators containing medications and fragrances

INVENTOR(S): Cronk, Peter J., Moorestown, NJ, United States
Cronk, Kristen, Moorestown, NJ, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001032645	A1	20011025
APPLICATION INFO.:	US 2001-859319	A1	20010517 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-99825, filed on 18 Jun 1998, GRANTED, Pat. No. US 6244265 Continuation-in-part of Ser. No. US 1997-942797, filed on 2 Oct 1997, ABANDONED Continuation of Ser. No. US 1997-791760, filed on 29 Jan 1997, GRANTED, Pat. No. US 5706800

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Peter J. Cronk, DUANE, MORRIS & HECKSCHER, One Liberty Place, Philadelphia, PA, 19103-7396

NUMBER OF CLAIMS: 20

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 3 Drawing Page(s)

LINE COUNT: 1077

SUMM . . . is hereby incorporated by reference, there is disclosed a medicated nasal dilator including essential fragrance oils, such as camphor and **menthol**. Such fragrance oils are commonly used in the treatment of nasal congestion, bronchial asthma and cough suppression. They are widely. . .

SUMM [0014] Early attempts to produce medicated dilators have uncovered several shortcomings that need to be addressed. Aromatic substances, such as **menthol** and camphor, while therapeutically effective, are highly **volatile**. **Oil**-base carriers, such as petrolatum, commonly called petroleum jelly, while effective in containing volatile **menthol** and camphor in airtight containers, quickly release these oily substances into the atmosphere when exposed to air. Accordingly, nasal dilators. . .

SUMM . . . time for which nasal dilators and strips are recommended, from an hour to 12 hours, prolonged exposure to the same **volatile oil** or mixture, such as **menthol** or camphor, generally engenders a phenomena of adaptation called "olfactory saturation", which results in a gradual loss of smell of. . .

DETD . . . endings responsible for hot or cold sensations. In this sense, they are deemed to be medications. Suitable cooling agents are **menthol**, **menthol**-based or acyclic carboximides, and **menthol**-based or acyclic ketals (acetals). Suitable cooling agents useful in the present invention include: monomenthyl succinate and its alkali metal salts. . .

DETD [0071] Preferred examples of aromatic medications of this invention include camphor, ephedrine, eucalyptus oil, peppermint oil, **menthol**, methyl salicylate, bornyl acetate, lavender oil, or a combination of these. **Menthol**, because of therapeutic benefits which extend beyond its peppermint smell, is especially attractive as an antitussive, cooling agent and decongestant.

DETD . . . benzyl alcohol, butamben picrate, camphor (also an aromatic active), camphorated metacresol, dibucaine, dibucaine hydrochloride, dimethisoquin hydrochloride, diphenhydramine hydrochloride, juniper tar, **menthol** (also an aromatic medication), phenol, phenolate sodium, promazine hydrochloride, resorcinol and mixtures thereof.

DETD . . . substrate 30, resilient member 60, mixed within adhesive layers 62, 42 or 32, as in, for example, a dispersion-type transdermal **patch** formulation made from acrylate copolymer adhesive, a lecithin gel based matrix, or a polyurethane acrylic copolymer, such as disclosed in. . .

DETD . . . is of a heavier odor character or lower note than the other. Thus, a fragrance ingredient which develops a cooling **menthol** odor may harmonize well with an element having a musky, heavier odor. As a result, it could be suggested to. . . be followed, upon the activation resulting from rupture of the microcapsules during perspiration, or simply from contact, with a tingling **menthol** sensation for example.

DETD . . . character than the liquid perfuming element, turns out to be particularly advantageous for preserving the volatile high notes, such as **menthol** and camphor, until they are most needed. It is clear, however, that other combinations of odor characters and delivery mechanisms. . . tenacious perfuming element of a baby powder character, in liquid form, combined with a micro-encapsulated element of a fresh citrus, **menthol**, or lavender odor, which would provide a fresh, sporty olfactive impulse following a surge of perspiration. Or, a child formulation using a cherry character, liquid benzaldehyde, with a micro-encapsulated cooling agent, WS-23 or **menthol**, and a micro-encapsulated analgesic and ephedrine, which are both activated by elevated body temperature or perspiration, during a fever. Another. . . amount of an analgesic and anti-inflammatory agent, such as ibuprofen, with about 5-10 mg of microencapsulated or carrier impregnated aromatic **menthol** oil and camphor. As previously mentioned, the combination of two distinct delivery mechanisms, olfactive characters, and/or medications, is almost limitless,. . .

CLM What is claimed is:

6. The nasal dilator of claim 1, wherein said aromatic substance comprises: camphor, eucalyptus oil, peppermint oil, **menthol**, methylsalicylate, bornyl acetate, lavender oil, citrus, an antihistamine, a decongestant, an anti-inflammatory agent, a vitamin, an analgesic, anesthetic, antipruritic, homologues,. . .

14. The method of claim 11, wherein said aromatic substance comprises: camphor, eucalyptus oil, peppermint oil, **menthol**, methylsalicylate, bornyl acetate, lavender oil, citrus, an antihistamine, a decongestant, an anti-inflammatory agent, a vitamin, an analgesic, anesthetic, antipruritic, homologues,. . .

L12 ANSWER 16 OF 41 USPATFULL

ACCESSION NUMBER: 2001:109789 USPATFULL

TITLE: COSMETIC, PHARMACEUTICAL, OR DERMATOLOGICAL **PATCH**

INVENTOR(S): GUERET, JEAN-LOUIS H., PARIS, France

PATENT ASSIGNEE(S): L'OREAL, Paris, France (non-U.S. corporation)

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DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ANTHONY M GUTOWSKI, FINNEGAN HENDERSON FARABOW, GARRETT & DUNNER LLP, 1300 I STREET N W, WASHINGTON, DC, 200053315
NUMBER OF CLAIMS: 90
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 937
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI COSMETIC, PHARMACEUTICAL, OR DERMATOLOGICAL **PATCH**

AB A cosmetic, pharmaceutical, or dermatological **patch** includes a composition including a hydrophilic gelling system in an aqueous phase. The hydrophilic gelling system includes at least one. . .

PARN [0001] The present application refers to U.S. patent application Serial No._____ filed on Jul. 29, 1999 [entitled: PACKAGED **PATCH** SYSTEM; Inventor: Jean-Louis H. Gueret; Attorney Docket No. 05725.0440] and U.S. patent application Ser. No. _____, filed on Jul. 29, 1999 [entitled: COSMETIC SKIN TREATMENT METHOD AND CLEANSING AND TREATMENT **PATCH**; Inventor: Jean-Louis H. Gueret; Attorney Docket No. 05725.0451]. The disclosure of these applications is incorporated herein by reference.

SUMM [0002] The present invention relates to a cosmetic, pharmaceutical, or dermatological **patch**. The **patch** preferably provides a treating, refreshing, or relaxing action. The **patch** provides a cosmetic and/or pharmaceutical effect by bringing at least one active substance dispersed on the **patch** in contact with the skin. The **patch** may be applied to the skin from a few minutes to an hour or more, depending on the type of treatment for which the **patch** is used.

SUMM . . . to dry. The dried sheet is then cut into different shapes and sizes, depending on the intended use for the **patch**. After cutting the **patch** to the desired shape and size, the **patch** is packaged in a sealed package.

SUMM . . . large losses of preparation materials (i.e., sheet material and solution). Manufacturing waste is particularly large when the shape of the **patch** is complex, such as patches specifically designed to fit on different parts of the face (e.g., nose, corner of the. . .

SUMM [0005] In light of the foregoing, there is a need in the art for an improved **patch**.

SUMM [0006] Accordingly, the present invention is directed to a **patch** that obviates one or more of the short-comings of the related art.

SUMM [0008] In particular, one objective of the invention is to provide a **patch** which can be easily manipulated and which, when applied to the skin, provides new sensations, especially coolness and softness.

SUMM [0009] Another objective of the invention is to produce a **patch** that is formed directly in situ in its packaging.

SUMM [0010] Yet another objective of the invention is to produce a **patch** which is simple and economical to produce.

SUMM . . . with the purposes of the invention, as embodied and broadly described herein, the invention includes a cosmetic, pharmaceutical, or dermatological **patch** that includes a composition including a hydrophilic gelling system in an aqueous phase. The hydrophilic gelling

system includes a gellan. . .

SUMM [0014] The **patch** of the present invention preferably includes a large amount of water so that it is cool upon application, while at the same time giving a strong impression of softness. The **patch** is preferably applied directly to the skin, without pre-wetting the **patch** and/or the skin. However, in an alternate embodiment, the **patch** and/or the skin is pre-wetted prior to application of the **patch**. The composition is preferably homogeneous and stable, and thus and does not require a particular preparation technique. The composition preferably. . . Preferably, the composition is cool on application and is sufficiently strong for application to and/or removal from the skin. The **patch** is preferably easily manipulated, in particular, when the **patch** is applied to and/or removed from the skin.

SUMM [0015] The term "**patch**" should be understood to include a structure including one or more layers that can be applied to and/or removed from the skin. The **patch** preferably includes a composition including a hydrophilic gelling system that forms a layer capable of being applied to and/or removed. . . to interact with the skin, whether by diffusion into the skin (through the dermis) or by surface contact. Preferably, the **patch** does not disintegrate when it is removed from the skin. At least some of the water and/or active agents in the composition preferably escape from the **patch** during application of the **patch** to the skin. For example, the water and/or active agents evaporate into the environment and/or are transferred to the skin. Depending on the type of interaction between the **patch** and the skin, the application time varies from about a few seconds to about a few hours, or even to. . .

SUMM [0016] In a preferred embodiment, the **patch** includes a reinforcing member that provides additional structural integrity to the **patch**. The reinforcing member provides several benefits to the **patch**. For example, the reinforcing member provides reinforcement to the **patch** so that it does not become deformed (e.g. elongated) during application. It also facilitates removal of the **patch** from the container in which it is packaged. It advantageously allows the manufacture of thinner patches because of the additional structural support it provides. It allows the flexibility of the **patch** to be modified so that the **patch** will conform to a surface when applied. It further allows the **patch** to be reused. Moreover, it facilitates manipulation of the **patch** and can produce an occlusive barrier.

SUMM [0017] The reinforcing member may be located on the surface of the **patch**, or it may be embedded within the composition so that the composition forms a matrix about at least a portion. . .

SUMM . . . a support and the composition is coated on the support. After the coating of the composition on the support, the **patch** is cut to the desired shape. The coating of the composition to a desired thickness may be carried out by. . . blade, and/or by calendering. The support preferably includes one of woven fabrics, nonwoven fabrics, and perforated plastic films. After the **patch** has been cut, it is preferably packaged inside a sealed packet.

SUMM . . . proportion of gelling agents allows the composition to avoid leaving a visible deposit when applied to the skin and the **patch** to be transparent of translucent. The hydrophilic gelling system preferably forms a gelled solid that has a compressive strength greater. . .

SUMM [0049] In another aspect, the **patch** includes pigment selected to allow visualization of at least one of impurities and residues taken from skin when the **patch** is applied to and/or removed from skin. The use of pigment is preferably for patches that provide a cleansing action. . .

SUMM [0050] In one embodiment, the **patch** is colored by incorporating synthetic, mineral, and/or organic pigments into the **patch**. The pigments may include pigments used in the food sector

or in cosmetics, for example, pigments for lipsticks and nail varnishes. For example, the **patch** could be constructed identical to or similar to one or more of the patches disclosed in U.S. application Ser. No.. . .

SUMM [0051] In another aspect, the invention includes a packaged **patch** system. The packaged **patch** system includes a container having an interior, a first end, and a second end opposite to the first end. The. . . includes a base portion and the second end includes an opening. The system also includes a cosmetic, pharmaceutical or dermatological **patch** in the container. The **patch** is preferably similar to or identical to the patches described above. The system further includes a removable cover sealably closing. . .

SUMM [0052] The **patch** is preferably formed in a container that can be used as the final packaging for the **patch** (i.e., the packaging in which the **patch** is sold). By forming the **patch** in the final packaging, fewer operations and manipulations are required for the manufacture of this **patch** than is necessary for many conventional patches. Further, the **patch** of the present invention can be manufactured to different shapes and sizes for various applications, without the need to cut the **patch** to the desired shape and size after manufacturing. Thus, the **patch** of the present invention does not suffer from waste of preparation materials like many conventional patches.

SUMM . . . particular silicone elastomers, or thermoplastic elastomers. Making the container out of an elastically deformable material advantageously facilitates removal of the **patch** from the container.

SUMM [0059] When the composition is placed in the container via the opening in the base portion and the **patch** includes a reinforcing member, the reinforcing member is preferably located distal to the base portion of the container. Alternatively, when. . .

DRWD [0063] FIG. 1 shows a first embodiment of a packaged **patch** system;

DRWD [0064] FIGS. 2A, 2B, and 2C show an embodiment of a method for manufacturing the packaged **patch** system of FIG. 1;

DRWD [0065] FIGS. 3A, 3B, and 3C show variations of the method shown in FIGS. 2A-2C for manufacturing a packaged **patch** system;

DRWD [0066] FIGS. 4A, 4B, and 4C show an alternate method for manufacturing a packaged **patch** system;

DRWD [0067] FIG. 5 shows a schematic view of a **patch** having a portion of a reinforcing member extending from the **patch**;

DRWD [0068] FIG. 6 shows a schematic cross-sectional view of a second embodiment of a packaged **patch** system including a container having a non-uniform depth;

DRWD [0069] FIG. 7 shows a schematic cross-sectional view of a third embodiment including a stacked arrangement of packaged **patch** systems; and

DRWD [0070] FIG. 8 shows a schematic cross-sectional view of a fourth embodiment of a packaged **patch** system including a package sealably containing the system.

DETD [0072] As shown in FIGS. 1 and 2A-2C, a packaged **patch** system 1 includes a container 2 formed by thermoforming or thin-wall injection-molding a material, such as a polypropylene. The container. . . 32 includes an opening 5. Preferably, the interior 3 of the container 2 has a shape capable of forming a **patch** 11 in the interior 3 of the container 2. Although the depth of the container 2 is preferably at least. . . be non-uniform along the base portion 4, as shown in FIG. 6. As shown in FIG. 1, for example, the **patch** 11 is preferably configured in the shape of a mask having a cut-out for the bridge of the nose, for. . .

DETD . . . 1. In still another embodiment (shown in FIG. 7), the removable cover is a base portion 4b of a second **patch** packaging system 1b. In the embodiment shown in FIG. 7, there are a series of systems stacked on top of. . .

DETD . . . in FIG. 1, to facilitate removal of the removable cover 6 from the rim 7, thereby facilitating removal of the **patch** 11 from the interior 3 of the container 2.

DETD . . . show cross-sectional views taken along the line 2-2 of FIG. 1, of various stages in the manufacture of the packaged **patch** system 1. As shown in FIG. 2A, the container 2 is positioned so that the base portion 4 is below. . .

DETD [0077] As the composition P cools, the composition P preferably sets or gels to form the **patch** 11. (See FIG. 2C.) Preferably, the **patch** 11 has a shape and a size of at least a portion of the interior 3 of the container 2. More preferably, the size and shape of the **patch** is the same as at least a lower portion of the interior 3 of the container 2. In a preferred. . .

DETD [0079] The **patch** 11 preferably contains at least one active ingredient capable of performing a cosmetic and/or pharmaceutical treatment to skin when the **patch** 11 is applied to skin.

DETD . . . above. For example, as shown in FIG. 3A, a reinforcing member 12 is located in a middle portion of the **patch** 11a. The **patch** 11a is formed by placing a first portion of the composition P in the container 2 and then placing the. . . to sandwich the reinforcing member 12 between the layers of the gelled matrix. This configuration allows the thickness of the **patch** 11a to be minimized, while still retaining sufficient structural integrity to perform a treatment.

DETD [0081] Preferably, the thickness of the **patch** ranges from about a few tenths of a millimeter to about a few millimeters. The preferred thickness for the **patch** depends on the desired application surface or treatment. The reinforcing member 12 preferably has a thickness ranging from between about. . .

DETD [0082] As shown in FIG. 5, a portion 45 of the reinforcing member 12 optionally extends from the **patch** 11 and is not covered by the composition P. The portion 45 advantageously provides a grip to facilitate removal of the **patch** 11 from the container 2.

DETD . . . composition P in the container 2 so that the reinforcing member 12 is located in a portion 21 of the **patch** 11b proximal to the base portion 4.

DETD . . . The container 2a is either partially or fully filled with the composition P, depending on the desired thickness of the **patch** 11b. When the **patch** 11c is formed in the container 2a, the reinforcing member 12 is preferably located in a portion 22 of the **patch** 11c proximal to the removable cover 6. After placing the composition P in the container 2a, the opening 20 is. . . P to escape from the container 2a after the opening 20 is sealed. As shown in FIG. 3C, the packaged **patch** system 1 is then positioned with the base portion 4a downward so that during the setting/gelling, the composition contacts the. . . the composition P forms a gelled matrix 34 about the reinforcing member 12. The reinforcing member 12 advantageously strengthens the **patch** 11b and prevents the **patch** 11b from becoming deformed (i.e., elongated) during use.

DETD [0085] To use the packaged **patch** systems described above, a user first removes the removable cover 6. When the container 2 is flexible, the user slightly flexes (i.e., deforms) the base portion 4 of the container 2, 2a and removes the **patch** from the interior 3 of the container 2, 2a. Optionally, the user grasps a portion of the reinforcing member 45 extending from the **patch** (see FIG. 5) to facilitate removal of the **patch**. Thereafter, the user applies the **patch** to an outer surface of the body to provide a cosmetic and/or pharmaceutical treatment.

DETD [0086] Advantageously, the **patch** can be manufactured in various shapes and sizes. For example, the **patch** can have a shape and size configured to fit around the eyes, on the forehead, on the nose, around the. . . an elastically deformable material (e.g., a thermoplastic elastomer) to facilitate deformation of the base portion 4 and removal of the **patch**.

DETD [0093] 0.15% of **essential oil** of lavender.

DETD [0095] After the user has removed the **patch** from the container, it is applied to the face for about 5 to about 60 minutes. Such a **patch** has a soothing, relaxing and tautening action.

DETD [0105] After the user has removed the **patch** from the container, it is applied to the face for about 5 to about 60 minutes. Such a **patch** has a soothing, lightening and levelling action.

DETD [0111] 0.5% of **menthol** crystals.

DETD [0113] After the user has removed the **patch** from the container, it is applied to the face for about 5 to about 60 minutes. Such a **patch** has a refreshing and asepticizing action.

CLM What is claimed is:

1. A cosmetic, pharmaceutical or dermatological **patch**, the **patch** comprising a composition including a hydrophilic gelling system in an aqueous phase, said hydrophilic gelling system including at least one. . .

2. The **patch** according to claim 1, wherein said hydrophilic gelling system is less than 20% of the total weight of said composition. . . .

3. The **patch** according to claim 1, wherein said gellan gum is present in an amount of at least 0.5% of the total. . .

4. The **patch** according to claim 1, wherein said gellan gum is present in an amount ranging from 2% to 15% of the. . .

5. The **patch** according to claim 4, wherein said gellan gum is present in an amount ranging from 2 to 6% of the. . .

6. The **patch** according to claim 1, wherein said at least one other hydrocolloid is chosen from: cellulose and its derivatives; seaweed extracts;. . .

7. The **patch** according to claim 6, wherein said cellulose and its derivatives are chosen from carboxymethylcelluloses, hydroxypropylcelluloses, methylcelluloses, hyroxypropylmethylcelluloses, hydroxyethylcelluloses and modified. . .

8. The **patch** according to claim 7, wherein said modified celluloses are chosen from celluloses modified by grafting of said cellulose's alkyl group. . . .

9. The **patch** according to claim 6, wherein said seaweed extracts are chosen from agar, carragheenans, and alginates.

10. The **patch** according to claim 6, wherein said seed extracts are chosen from carob gums, guar gums and modified guar gums.

11. The **patch** according to claim 10, wherein said modified guar gums are chosen from guar gums modified by grafting the alkyl group. . .

12. The **patch** according to claim 6, wherein said plant exudates are chosen from gum arabic, karaya gums, gum tragacanth and gatty gums. . . .

13. The **patch** according to claim 6, wherein said microorganism exudates are xanthan gums.

14. The **patch** according to claim 6, wherein said fruit extracts are pectins.

15. The **patch** according to claim 6, wherein said gelling agents of animal origin are chosen from gelatins and caseinates.

16. The **patch** according to claim 6, wherein said synthetic water-soluble gelling polymers are chosen from crosslinked polyacrylic acids.

17. The **patch** according to claim 6, wherein said silicon derivatives are synthetic hectorites.

18. The **patch** according to claim 1, wherein said at least one other hydrocolloid is chosen from xanthan gum; cellulose derivatives, carob gum,. . .
19. The **patch** according to claim 1, wherein said at least one other hydrocolloid is chosen from xanthan gum, carboxymethylcellulose and modified guar. . .
20. The **patch** according to claim 19, wherein said modified guar gum is hydroxypropyl guar.

21. The **patch** according to claim 1, wherein said at least one other hydrocolloid is present in an amount ranging from 0.5 to. . .
22. The **patch** according to claim 21, wherein said at least one other hydrocolloid is present in an amount ranging from 0.5 to. . .
23. The **patch** according to claim 1, wherein said aqueous phase is present in an amount ranging from 60 to 97% of the. . .
24. The **patch** according to claim 23, wherein said aqueous phase is present in an amount ranging from 80 to 95% of the. . .
25. The **patch** according to claim 1, wherein said composition further comprises at least one fatty phase.

26. The **patch** according to claim 25, wherein said at least one fatty phase comprises at least one oil.

27. The **patch** according to claim 25, wherein said at least one fatty phase further comprises a fatty substance.

28. The **patch** according to claim 26, wherein said at least one oil is chosen from mineral oils, oils of plant origin, oils. . .
29. The **patch** according to claim 28, wherein said synthetic oils are chosen from fatty esters.

30. The **patch** according to claim 28, wherein said silicone oils are chosen from volatile silicone oils, polymehtylsiloxanes, polymethylphenylsiloxanes, polysiloxanes modified by fatty. . .
31. The **patch** according to claim 27, wherein said fatty substance is chosen from fatty acids, fatty alcohols and waxes.

32. The **patch** according to claim 31, wherein said at least one fatty phase is present in an amount ranging up to 30%. . .
33. The **patch** according to claim 32, wherein said at least one fatty phase is present in an amount ranging from 0.1 to. . .
34. The **patch** according to claim 33, wherein said at least one fatty phase is present in an amount ranging from 0.5 to. . .
35. The **patch** according to claim 26, wherein said composition further comprises at least one surfactant.

36. The **patch** according to claim 35, wherein said at least one surfactant is chosen from nonionic, anionic, cationic and amphoteric surfactants.

37. The **patch** according to claim 36, wherein said at least one surfactant is present in an amount ranging from 0.05 to 8%. . .
38. The **patch** according to claim 37, wherein said at least one surfactant is present in an amount ranging from 0.05 to 5%. . .
39. The **patch** according to claim 1, wherein said composition further comprises at least one salt.

40. The **patch** according to claim 39, wherein said at least one salt is chosen from monovalent, divalent and trivalent metal salts.

41. The **patch** according to claim 40, wherein said monovalent salts are chosen from alkali metal salts.

42. The **patch** according to claim 40, wherein said divalent metal salts are chosen from alkaline-earth metal salts.

43. The **patch** according to claim 41, wherein said alkali metal salts are sodium salts.

44. The **patch** according to claim 42, wherein said alkaline-earth metal salts are calcium salts.

45. The **patch** according to claim 39, wherein said at least one salt is made up from ions chosen from carbonates, bicarbonates, sulphates,. . .
46. The **patch** according to claim 45, wherein said salts of alpha-hydroxy acids are chosen from citrates, tartrates, lactates and malates.

47. The **patch** according to claim 45, wherein said salts of amino acids are chosen from aspartates, arginates, glycocholates and fumarates.

48. The **patch** according to claim 39, wherein said at least one salt is chosen from calcium, magnesium and strontium nitrates, calcium and. . .
49. The **patch** according to claim 39, wherein said at least one salt is present in an amount ranging from 0.01 to 2%. . .
50. The **patch** according to claim 49, wherein said at least one salt is present in an amount ranging from 0.1 to 1%. . .
51. The **patch** according to claim 1, wherein said composition further comprises at least one solvent chosen from primary alcohols, glycols, glycol ethers,. . .
52. The **patch** according to claim 51, wherein said primary alcohols are chosen from ethanol and isopropanol.

53. The **patch** according to claim 51, wherein said glycols are chosen from propylene glycol, butylene glycol, dipropylene glycol and diethylene glycol.

54. The **patch** according to claim 51, wherein said glycol ethers are chosen from monopropylene, dipropylene and tripropylene glycol alkyl (C.sub.1-C.sub.4) ethers.

55. The **patch** according to claim 51, wherein said at least one solvent is present in an amount ranging up to 10% of. . .
56. The **patch** according to claim 1, wherein said composition further comprises at least one active agent chosen from antioxidants, free-radical scavengers, moisturizers,. . .
57. The **patch** according to claim 56, wherein said moisture absorbers are chosen from cotton and polyacrylate.

58. The **patch** according to claim 1, wherein said composition further comprises at least one water-soluble active agent chosen from ascorbic acid and. . .
59. The **patch** according to claim 56, wherein said composition further comprises at least one liposoluble compound chosen from D-.alpha.-tocopherol, DL-.alpha.-tocopherol, D-.alpha.-tocopherol acetate,. . .
60. The **patch** according to claim 59, wherein said keratolytic agents are chosen from salicylic acid, its salts and its esters, 5-(n-octanoyl)salicylic acid. . .
61. The **patch** according to claim 60, wherein said alkyl esters of .alpha.-hydroxy acids are chosen from alkyl esters of citric acid, lactic. . .
62. The **patch** according to claim 59, wherein said ceramides are 2-oleoylamino-1,3-octadecane.

63. The **patch** according to claim 1, said composition further comprising at least one setting retarder compound.

64. The **patch** according to claim 1, wherein said at least one setting retarder compound is chosen from salts.

65. The **patch** according to claim 1, wherein the **patch** is colored to facilitate visualization of impurities and/or residues taken out of the skin when the **patch** is applied to and/or removed from skin.

66. The **patch** according to claim 65, wherein the **patch** is colored by one of synthetic, mineral, and organic pigments.

67. The **patch** according to claim 1, further comprising a reinforcing member.

68. The **patch** according to claim 67, wherein the reinforcing member is chosen from woven fabrics, nonwoven fabrics, and perforated films.

69. The **patch** according to claim 67, wherein the composition is coated on the reinforcing member to form the **patch**.

70. The **patch** according to claim 67, wherein the composition forms a gelled matrix about at least a portion of the reinforcing member to form the **patch**.

71. A packaged **patch** system, comprising: a container having an interior, a first end, and a second end opposite to the first end, the first end including a base portion and the second end including an opening; a cosmetic, pharmaceutical or dermatological **patch** in the container, the **patch** comprising a composition including a hydrophilic gelling system in an aqueous phase, said hydrophilic gelling system including at least one gellan gum and at least one other hydrocolloid, wherein the **patch** has a shape substantially the same as a shape of at least a portion of the interior of the container, and wherein the **patch** is formed in the container by placing the composition in the container; and a removable cover sealably closing the opening. . .

76. The system according to claims 71, wherein the **patch** is formed by placing the composition in the container through the opening in the second end.

84. The system according to claim 71, wherein the **patch** further comprises a reinforcing member.

85. The system according to claim 84, wherein the **patch** includes a first face proximal to the base portion and a second face distal to the base portion, and wherein. . .

. . . The system according to claim 71, wherein the base portion of the container is deformable to facilitate removal of the **patch** from the container.

88. A method of at least one of cosmetic and pharmaceutical treatment, the method comprising: providing a packaged **patch** system including a container having an interior, a first end, and a second end opposite to the first end, the first end including a base portion and the second end including an opening, a cosmetic, pharmaceutical or dermatological **patch** in the container, the **patch** comprising a composition including a hydrophilic gelling system in an aqueous phase, said hydrophilic gelling system including at least one gellan gum and at least one other hydrocolloid, wherein the

patch has a shape substantially the same as a shape of at least a portion of the interior of the container, and wherein the **patch** is formed in the container by placing the composition in the container, and a removable cover sealably closing the opening in the second end. removing the removable cover from the container; removing the **patch** from the container; and applying the **patch** to an outer surface of the body.

89. The **patch** according to claim 16, wherein said crosslinked polyacrylic acids are crosslinked via an alkyl chain.

90. The **patch** according to claim 68, wherein the reinforcing member is a net.

L12 ANSWER 17 OF 41 USPATFULL

ACCESSION NUMBER:	2001:84970 USPATFULL
TITLE:	Adhesively applied external nasal strips and dilators containing medications and fragrances
INVENTOR(S):	Cronk, Peter J., 919 McElwee Rd., Moorestown, NJ, United States 08057 Cronk, Kristen, 919 McElwee Rd., Moorestown, NJ, United States 08057

	NUMBER	KIND	DATE
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APPLICATION INFO.:	US 1998-99825		19980618 (9)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-942797, filed on 2 Oct 1997 Continuation of Ser. No. US 1997-791760, filed on 29 Jan 1997, now patented, Pat. No. US 5706800
DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Weiss, John G.
ASSISTANT EXAMINER:	Weiss, Jr., Joseph F.
LEGAL REPRESENTATIVE:	Duane Morris & Hecksher LLP
NUMBER OF CLAIMS:	42
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT:	1308

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . is hereby incorporated by reference, there is disclosed a medicated nasal dilator including essential fragrance oils, such as camphor and **menthol**. Such fragrance oils are commonly used in the treatment of nasal congestion, bronchial asthma and cough suppression. They are widely. . .

SUMM Early attempts to produce medicated dilators have uncovered several shortcomings that need to be addressed. Aromatic substances, such as **menthol** and camphor, while therapeutically effective, are highly **volatile**. **Oil**-base carriers, such as petrolatum, commonly called petroleum jelly, while effective in containing volatile **menthol** and camphor in airtight containers, quickly release these oily substances into the atmosphere when exposed to air. Accordingly, nasal dilators. . .

SUMM . . . time for which nasal dilators and strips are recommended, from an hour to 12 hours, prolonged exposure to the same **volatile oil** or mixture, such as **menthol** or camphor, generally engenders a phenomena of adaptation called "olfactory saturation", which results in a gradual loss of smell of. . .

DETD . . . endings responsible for hot or cold sensations. In this sense, they are deemed to be medications. Suitable cooling agents are **menthol**, **menthol**-based or acyclic carboximides, and **menthol**-based or acyclic ketals (acetals). Suitable cooling agents useful in the present invention include: monomenthyl succinate

and its alkali metal salts. . .

DETD Preferred examples of aromatic medications of this invention include camphor, ephedrine, eucalyptus oil, peppermint oil, **menthol**, methyl salicylate, bornyl acetate, lavender oil, or a combination of these. **Menthol**, because of therapeutic benefits which extend beyond its peppermint smell, is especially attractive as an antitussive, cooling agent and decongestant.

DETD . . . benzyl alcohol, butamben picrate, camphor (also an aromatic active), camphorated metacresol, dibucaine, dibucaine hydrochloride, dimethisoquin hydrochloride, diphenhydramine hydrochloride, juniper tar, **menthol** (also an aromatic medication), phenol, phenolate sodium, promazine hydrochloride, resorcinol and mixtures thereof.

DETD . . . substrate 30, resilient member 60, mixed within adhesive layers 62, 42 or 32, as in, for example, a dispersion-type transdermal **patch** formulation made from acrylate copolymer adhesive, a lecithin gel based matrix, or a polyurethane acrylic copolymer, such as disclosed in. . .

DETD . . . is of a heavier odor character or lower note than the other. Thus, a fragrance ingredient which develops a cooling **menthol** odor may harmonize well with an element having a musky, heavier odor. As a result, it could be suggested to. . . be followed, upon the activation resulting from rupture of the microcapsules during perspiration, or simply from contact, with a tingling **menthol** sensation for example.

DETD . . . character than the liquid perfuming element, turns out to be particularly advantageous for preserving the volatile high notes, such as **menthol** and camphor, until they are most needed. It is clear, however, that other combinations of odor characters and delivery mechanisms. . . tenacious perfuming element of a baby powder character, in liquid form, combined with a micro-encapsulated element of a fresh citrus, **menthol**, or lavender odor, which would provide a fresh, sporty olfactive impulse following a surge of perspiration. Or, a child formulation using a cherry character, liquid benzaldehyde, with a micro-encapsulated cooling agent, WS-23 or **menthol**, and a micro-encapsulated analgesic and ephedrine, which are both activated by elevated body temperature or perspiration, during a fever. Another. . . amount of an analgesic and anti-inflammatory agent, such as ibuprofen, with about 5-10 mg of microencapsulated or carrier impregnated aromatic **menthol** oil and camphor. As previously mentioned, the combination of two distinct delivery mechanisms, olfactive characters, and/or medications, is almost limitless,. . .

CLM What is claimed is:

6. The nasal dilator of claim 1, wherein said aromatic substance comprises: camphor, eucalyptus oil, peppermint oil, **menthol**, methylsalicylate, bornyl acetate, lavender oil, citrus, an antihistamine, a decongestant, an anti-inflammatory agent, a vitamin, an analgesic, anesthetic, antipruritic, homologues,. . .

28. The method of claim 24, wherein said aromatic substance comprises: camphor, eucalyptus oil, peppermint oil, **menthol**, methylsalicylate, bornyl acetate, lavender oil, citrus, an antihistamine, a decongestant, an anti-inflammatory agent, a vitamin, an analgesic, anesthetic, antipruritic, homologues,. . .

35. The method of claim 33, wherein said aromatic medication comprises: camphor, eucalyptus oil, peppermint oil, **menthol**, methylsalicylate, bornyl acetate, lavender oil, citrus oil, homologues, combinations, derivatives or chemical variations thereof; and said transdermal medication comprises: an. . .

41. The nasal dilator of claim 36, wherein said fragrance comprises **menthol** in a therapeutically effective amount.

L12 ANSWER 18 OF 41 USPATFULL
ACCESSION NUMBER: 2001:47574 USPATFULL
TITLE: Oral transmucosal delivery of drugs or any other

ingredients via the inner buccal cavity

INVENTOR(S): Acharya, Ramesh N., Salt Lake City, UT, United States
Baker, Joseph L., Salt Lake City, UT, United States

PATENT ASSIGNEE(S): Watson Pharmaceuticals, Inc., Corona, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6210699	B1	20010403	
APPLICATION INFO.:	US 1999-285018		19990401	(9)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Azpuru, Carlos A.
LEGAL REPRESENTATIVE: Thorpe North & Western LLP
NUMBER OF CLAIMS: 47
EXEMPLARY CLAIM: 1
LINE COUNT: 953
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . herb extracts or minerals, and mixtures thereof. For example, odorants suitable for masking or refreshing objectionable breath including peppermint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof. Active substances to be delivered by the device of. . .

SUMM . . . can be used as part of a system for delivery of substances through the oral mucosa (as a buccal transmucosal **patch**), for delivery of substances into the oral cavity itself, or the combination of both via a laminated configuration, which may be either in the form of a tablet or **patch**. Both patches and tablets are prepared such that the mucoadhesive layer contains the non-plasticized PVP adhesive which may or may. . .

SUMM For example, odorants suitable for masking or refreshing objectionable breath include agents such as mint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, peppermint, lime and any mixtures thereof. Other substances which are suitable for being transmucosally. . .

SUMM . . . which may also contain an active substance. The systems may be in either the form of a tablet or a **patch**. Bilayer tablets are made by classical bilayer tablet compression techniques on a suitable press. Layers of a bilayer tablets consisting. . .

SUMM In some embodiments the active substance is an odorant such as an **essential oil** of a plant material, a refined fraction of an **essential oil**, or a combination of the chief aromatic constituents of an **essential oil**. Preferably, the odorant is a mint such as obtained from oils of peppermint, spearmint or wintergreen. Any other suitable odorant or masking agent may also be used such as **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof. In other embodiments the active substances may be saliva. . .

DETD . . . tablet for breath refreshening formulated according to the method described in Example 1. The active substance in this example is **menthol** mint (50% by weight in active the layer and 30% by weight in the adhesive layer). The adhesive layer contains. . .

DETD OTM Tablet of **Menthol** Mint for Breath Refreshening

Active Layer	% w/w	Adhesive Layer	% w/w
Menthol Mint	50.00	**Menthol** Mint	30.00
Mannitol	38.30	Mannitol	34.25
Acelsulfame K	1.00	Povidone K90	25.00
Povidone K30	10.00	Povidone K30	10.00
FD&C Yellow. . .			

DETD . . . long acting breath refreshening formulated according to the method described in Example 1. The active substance in this example is **menthol** mint (40% by weight in the active layer and 30% by weight in the adhesive layer). The adhesive layer contains. . .

DETD OTM Tablet of **Menthol** Mint Long Acting

Active Layer	% w/w	Adhesive Layer	% w/w
Menthol Mint	40.00	**Menthol** Mint	30.00
Mannitol	49.30	Mannitol	14.25
Acelsulfame K	1.00	Povidone K90	30.00
Carbomer 934P	4.00	Povidone K30	10.00
Methocel	5.00. . .		

CLM What is claimed is:

. . . according to claim 9 wherein the breath freshener is an odorant member selected from the group consisting of peppermint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof.

. . . according to claim 33 wherein the breath freshener is an odorant member selected from the group consisting of peppermint, spearmint, **menthol**, grape, cherry, lemon, strawberry, orange, licorice, lime and any mixtures thereof.

L12 ANSWER 19 OF 41 USPATFULL

ACCESSION NUMBER: 2001:18014 USPATFULL

TITLE: Skin sanitizing compositions

INVENTOR(S): Sine, Mark Richard, Morrow, OH, United States
Wei, Karl Shiqing, Mason, OH, United States
Jakubovic, David Andrew, West Chester, OH, United States
Thomas, Cheyne P., Highland Heights, KY, United States
Dodd, Michael Thomas, Florence, KY, United States
Putman, Christopher Dean, West Chester, OH, United States

PATENT ASSIGNEE(S): The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6183766	B1	20010206
APPLICATION INFO.:	US 1999-320997		19990527 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-249209, filed on 12 Feb 1999, now abandoned

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Dodson, Shelley A.

ASSISTANT EXAMINER: Lamm, Marina

LEGAL REPRESENTATIVE: Elandjian, Lucy, Allen, George W., Little, Darryl C.

NUMBER OF CLAIMS: 23

EXEMPLARY CLAIM: 1

LINE COUNT: 1383

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . actives, referred to as natural essential oils. These actives derive their names from their natural occurrence in plants. Typical natural **essential oil** antibacterial actives include oils of anise, lemon, orange, rosemary, wintergreen, thyme, lavender, cloves, hops, tea tree, citronella, wheat, barley, lemongrass, cedar leaf, cedarwood, cinnamon, fleagrass, geranium, sandalwood, violet, cranberry, eucalyptus, vervain, peppermint, gum benzoin, basil, fennel, fir, balsam, **menthol**, ocmea origanum, Hydastis carradensis, Berberidaceae daceae, Ratanhiae and Curcuma longa. Also included in this class of natural essential oils are. . . These chemicals include, but are not limited to anethol, catechole, camphene, carvacol, eugenol, eucalyptol, ferulic acid, farnesol, hinokitiol, tropolone, limonene, **menthol**, methyl salicylate, thymol, terpineol, verbenone, berberine, ratanhiae extract, caryophellene oxide, citronellic acid, curcumin, nerolidol and geraniol.

SUMM . . . selected to provide the desired level of consumer perceived sensation and can be modified as desired. Suitable sensate technologies

include **menthol**, eucalyptus, 3-1-menthoxy propane-1,2-diol, N-substituted-p-menthane-3-carboxamides and acyclic carboxamides.

SUMM . . . as hydrocortisone, methylprednisolone, dexamethasone, triamcinolone acetconide, and desoxametasone; anesthetics such as benzocaine, dyclonine, lidocaine and tetracaine; antipruitics such as camphor, **menthol**, oatmeal (colloidal), pramoxine, benzyl alcohol, phenol, panthenol, soluble chitosan and resorcinol. Mixtures of the irritation reducing agents can also be. . .

SUMM When additional actives are present, the compositions of the present invention can be applied by use of a **patch**. Such an approach is particularly useful for problem skin areas needing more intensive treatment or for the transderamal delivery of drugs. The **patch** can be occlusive, semi-occlusive or non-occlusive. The compositions and actives of the present invention can be contained within the **patch** or be applied to the skin prior to application of the **patch**. The **patch** can also include additional actives such as chemical initiators for exothermic reactions such as those described in PCT application WO 9701313 to Burkett et al. Preferably the **patch** is applied at night as a form of night therapy. Examples of useful transdermal systems are described in U.S. Pat.. . . in their entirety. It is understood, however, that such actives can be delivered using the present invention even absent a **patch**.

CLM What is claimed is:

. . . 18. A skin sanitizing composition according to claim 17, wherein the skin sensate is selected from the group consisting of **menthol**, eucalyptus, 3-1-menthoxy propane-1,2-diol, N-substituted-p-menthane-3-carboxamides and acyclic carboxamides.

L12 ANSWER 20 OF 41 USPATFULL

ACCESSION NUMBER: 2000:61200 USPATFULL

TITLE: Pharmaceutical suppository composites for fever and influenza and method of producing the composites

INVENTOR(S): Hsu, Wu-Ching, No. 2, Alley 16, Lane 41, Sec. 2, Nan-Ching E. Rd., Taipei, Taiwan, Province of China
Keng, Su-Hsien, No. 2, Alley 16, Lane 41, Sec. 2, Nan-Ching E. Rd., Taipei, Taiwan, Province of China

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6063383		20000516	
APPLICATION INFO.:	US 1999-238744		19990128	(9)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lankford, Jr., Leon B.
ASSISTANT EXAMINER: Ware, Deborah K.
LEGAL REPRESENTATIVE: Bacon & Thomas
NUMBER OF CLAIMS: 37
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 1200
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD Its roots consist of a **volatile oil**, which contains .beta.-terpinene, limonene, camphene, .beta.-fenchene, pulegone, isoborneol, .beta.-terpineol, linalool, .alpha.-copaene, humulene, .alpha.-farnesene, aromadendrene, cis-caryophyllene, iso-caryophyllene, .beta.-elemene, .gamma.-muurolene, patchoulane, nootkatone,. . .

DETD 1. Anti-inflammation: An intra-abdominal injection of 478 mg/kg bupleurum saponin and 400 mg/kg bupleurum **volatile oil** has a significant inhibitory action on the swelling in the wister rats' feet caused by Chondrus ocellatus. Bupleurum saponin can. . .

DETD . . . It is believed that the roots of bupleurum falcatum contain a higher concentration of effective contents such as saponins and **volatile oil** than the stems or leaves of bupleurum

falcatum. An oral medication of 800 mg/kg bupleurum saponin not only can reduce. . . wister rats. Bupleurum saponin also has a significant antipyretic action. An intra-abdominal injection of 300 mg/kg (1/4 LD.sub.50 bupleurum falcatum) **volatile oil** can significantly reduce wister rats' temperature rise caused by the suspension of cerevisiae fermentum.

DETD Its parts above the ground, grains and stalks contain 1.12%, 1.69%, and 0.6% of **volatile oil** respectively. Its major contents are pulegone, menthone, isomenthone and isopulegone; 1-ethoxypentane, 3-methylcyclopentanone, 3-methylcyclohexanone, benzaldehyde, 1-cten-3-ol, 3-octanone, 3-octanol, cymene, limonene, neomenthol, **menthol**, piperitone, piperitenone, humulene, caryophyllene. The **volatile oil** of its parts above ground contains .beta.-pinene, 3,5-dimethyl-2-cyclohexen-1-one, ethenyl dimethyl bezene, cineole, carvone, dihydrocarvone, and verbenone. The infloresence of its. . .

DETD . . . effect on the pyrexia of small rats, which has been treated with endotoxin. An injection of 0.5 ml/kg herba schizonepetae **volatile oil** into the stomach has an effect on the pyrexia of normal wister rats. One hour after the injection, the body. . . temperature is reduced by 2.2.degree. C. in comparison to the body temperature before taking the medication. This indicates that the **volatile oil** of herba schizonepetae can reduce normal body temperature.

DETD . . . blood capillary permeability caused by an intra-abdominal injection of 0.7% 10 ml/kg acetic acid to a small rat. Pulegone, the **volatile oil** of herba schizonepetae, is injected into the stomach and this has a 39.8% inhibitory rate on abdominal osmosis. Its anti-inflammation. . .

DETD It contains chlorogenic acid, isochlorogenic acid, ginnol, .beta.-sitosrol, sitgmasterol, and .beta.-sitosrol, sitgmasterol-D-glucoside. It also contains **volatile oil**, which contains linalool, cis-6.6-trimethyl-2-vinyl-5-hydroxy-tetrahydropyran, ethlpalmitate, 1,1'-bicyclohexyl, methylinoleate, 3-methyl-2-(2-pentenyl), tran-tran-farnesol, ethyllinolenate, .beta.-cubebene, cis-3-hexen-1-ol, .alpha.-terpineol, benzylalcohol, 2-methyl-1-butanol, banztlalcohol, phenethylalcohol, cis-linalooloxide, eugenol, and. . .

DETD . . . (for example, cocoa butter) be the best schematic illustration of the above-mentioned pharmacological composites. These are first distilled to extract **volatile oil**, which is then filtered to produce dry infused **plaster** powder, which is then watered and modeled as the suppository for fever and influenza. The pharmacological process of this suppository. . .

DETD . . . of radix bupleuri scorzonerifolium wild, fructus forsythiae, and herba schizonepetae to the above pharmacological composites to extract 6 ml of **volatile oil** within a period of four hours. The aqueous solution after distillation becomes approximately 6,000 ml.

DETD Step 6: To the above dry infused powder extracts, add approximately 1,120 g. of calculus bovis and **volatile oil**. Add 1120 g of the suppository exicipient (cocoa butter). Heat the above mixture (at a constant temperature of 60.degree. C.. . .

CLM What is claimed is:

2. The pharmaceutical suppository composite of claim 1 wherein said radix bupleuri scorzonerifolium wild includes **volatile oil** wherein said **volatile oil** contains .beta.-terpinene, limonene, camphene, .beta.-fenchene, pulegone, isoborneol, .beta.-terpineol, linalool, .alpha.-copaene, humulene, .alpha.-farnesene, aromadendrene, cis-caryophyllene, iso-caryophyllene, .beta.-elemene, .gamma.-muurolene, patchoulane, nootkatone, and. . .

11. The pharmaceutical suppository composite of claim 1 wherein said herba schizonepetae includes **volatile oil** wherein said **volatile oil** comprises pulegone, menthone, isomenthone and isopulegone.

. . . suppository composite of claim 11 wherein said herba schizonepetae comprises 1-ethoxypentane, 3-methylcyclopentonone, 3-methylcyclohexanone, benzaldehyde, 1-cten-3-ol, 3-octanone, 3-octanol, cymene, limonene, neomenthol, **menthol**, piperitone, piperitenone, humulene, and caryopyllen.

16. The pharmaceutical suppository composite of claim 1 wherein said flos lonicerae japonicae includes **volatile oil** wherein said **volatile oil** contains linalool, cis-6.6-trimethyl-2-vinyl-5-hydroxy-tetrahydropyran, ethlpalmitate, 1,1'-bicyclohexyl, methylinoleate, 3-methyl-2-(2-pentenyl), tran-tran-farnesol, ethyllinolenate, .beta.-cubebene, cis-3-hexen-1-ol, .alpha.-terpineol, benzylalcohol, 2-methyl-1-butanol, banztlalcohol, phenethylalcohol, cis-linalooloxide, eugenol, and carvacrrol.

. . .

. . . containing radix bupleuri scorzonerifolium wild, fructus forsythiae, and herba schizonepetae and distilling the mixture containing said water therein to obtain **volatile oil**, a post-distillation aqueous solution and gruffs; b) mixing said gruffs obtained in step a) with flos lonicerae japonicae and fructus. . . to form a dry powder extract; f) mixing said dry powder extract obtained in step e) with calculus bovis, said **volatile oil** and suppository excipients to form a suppository mixture which is then heated and molded to produce said pharmaceutical suppository composite.

. . .

25. The method of claim 23 wherein the step a) includes extraction of said **volatile oil** from said mixture wherein said **volatile oil** is extracted after said distilling and within a period of four hours.

26. The method of claim 23 wherein the amount of extracted **volatile oil** is 6 ml and the aqueous solution after distillation is about 6,000 ml.

. . . the amount of said suppository excipients is equal to the combined weight of said dry powder extract, calculus bovis and **volatile oil**.

L12 ANSWER 21 OF 41 USPATFULL

ACCESSION NUMBER:	1999:78353 USPATFULL		
TITLE:	Antioxidant preparation		
INVENTOR(S):	Hersh, Theodore, Atlanta, GA, United States		
PATENT ASSIGNEE(S):	Thione International, Inc., Atlanta, GA, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5922346		19990713
APPLICATION INFO.:	US 1997-982058		19971201 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Dodson, Shelley A.		
ASSISTANT EXAMINER:	Lamm, Marina		
LEGAL REPRESENTATIVE:	Wittenberg, Malcolm B.		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1174		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM Leukoplakia, a tobacco induced white **patch** on the buccal mucosa, as found in smokers, is a localized irritation due to direct contact of smoked or smokeless. . .

SUMM Diamond patented a combination of non-ionic and anionic surfactants with

at least one **essential oil** as dental and oral preparations for smokers for solubilizing and removing tobacco tars as well as onion and garlic essential. . .

DETD . . . gums, flavoring may be added. Flavors may be based on oils of spearmint and peppermint. Other flavoring materials may include **menthol**, clove, cinnamon, wintergreen, citrus fruits, eucalyptus, aniseed and others which are commercially available. Flavors may range in concentrations depending on. . .

DETD . . . art in these respective industries. Flavors may be based on oils of spearmint and peppermint. Other flavoring materials may include **menthol**, clove, cinnamon, wintergreen, citrus fruits, eucalyptus, aniseed and others commercially available for these flavoring purposes.

L12 ANSWER 22 OF 41 USPATFULL

ACCESSION NUMBER:	1999:60998 USPATFULL
TITLE:	Intra-oral antioxidant preparations
INVENTOR(S):	Hersh, Theodore, Atlanta, GA, United States
PATENT ASSIGNEE(S):	Thione International, Inc., Atlanta, GA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5906811		19990525
APPLICATION INFO.:	US 1997-884282		19970627 (8)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Kulkosky, Peter F.
LEGAL REPRESENTATIVE:	Wittenberg, Malcolm B.
NUMBER OF CLAIMS:	8
EXEMPLARY CLAIM:	1
LINE COUNT:	1356

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM Leukoplakia, a tobacco induced white **patch** on the buccal mucosa, as found in smokers, is a localized irritation due to direct contact of smoked or smokeless. . .

SUMM Diamond patented a combination of non-ionic and anionic surfactants with at least one **essential oil** as dental and oral preparations for smokers for solubilizing and removing tobacco tars as well as onion and garlic essential. . .

SUMM . . . art in these respective industries. Flavors may be based on oils of spearmint and peppermint. Other flavoring materials may include **menthol**, clove, cinnamon, wintergreen, citrus fruits, eucalyptus, aniseed and others commercially available for these flavoring purposes.

L12 ANSWER 23 OF 41 USPATFULL

ACCESSION NUMBER:	1999:56276 USPATFULL
TITLE:	Volatile active substance containing **plaster** that may be produced without solvents
INVENTOR(S):	Horstmann, Michael, Neuwied, Germany, Federal Republic of
PATENT ASSIGNEE(S):	LTS Lohmann Therapie-Systeme GmbH, Neuwied, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5902601		19990511
APPLICATION INFO.:	US 1997-959541		19971024 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 619579		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1993-4332094	19930922

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Page, Thurman K.
ASSISTANT EXAMINER: Shelborne, Kathryne E.
LEGAL REPRESENTATIVE: Wenderoth, Lind & Ponack, L.L.P.
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 403

TI Volatile active substance containing **plaster** that may be produced without solvents

AB An active substance-containing adhesive **patch** with a pressure sensitive fixing device, containing at least one readily volatile ingredient, consisting of a substantially active substance-impermeable backing. . .

SUMM This invention relates to an active substance-containing adhesive **patch** for the release of active substances via the skin to the human body.

SUMM . . . benzyl alcohol, butanol and other short-chain alcohols, triglycerides, high-boiling aliphatic hydrocarbons, glycerin, glycerin monooleate, isopropyl myristate or other short-chain esters, **menthol** or other volatile terpene derivatives (which are mixture components of a great number of natural essential oils), octanol-1 and other. . .

SUMM . . . can be found in U.S. Pat. No. 4,915,950. Here, the ingredient--which may also be a volatile substance, for example an **essential oil**--is applied to a porous, absorbent substrate by printing; from this substrate the ingredient is subsequently--prior to application--distributed by migration in. . .

SUMM . . . sufficiently shear-resistant after the migration of the readily volatile ingredient, as is required for use as an active substance adhesive **patch**.

SUMM A possible application of the construction principle according to the invention is in the form of an acetylsalicylic acid adhesive **patch**, or a pharmaceutically acceptable salt thereof, which acquires a particularly high skin permeability if the relatively high-volatile additive limonene is. . .

SUMM . . . of ethylene glycol or propylene glycol, 2-octyl dodecanol, glycerin, glycerin monooleate, glycerin monostearate, hydrogenated castor oil, isopropyl myristate, isopropyl palmitate, **menthol** or other volatile terpene derivatives (which are mixture components of numerous essential oils), methyl benzoate, methyl octyl sulfoxide, mono- or. . .

SUMM Suitable materials for all matrix layers of the **plaster** according to the invention are therefore acrylic acid ester-containing copolymers, mixtures of rubbers and resins, polyvinyl acetate, silicone polymers and. . .

CLM What is claimed is:

1. An active substance-containing adhesive **patch** having pressure sensitive adhesive properties and containing at least one readily volatile ingredient, said **patch** consisting of a substantially active substance-impermeable backing layer, at least two active substance-containing matrix layers, and a removable protective layer,. . .

2. The active substance-containing adhesive **patch** according to claim 1, wherein the readily volatile ingredient is a pharmaceutically active agent.

3. The active substance-containing adhesive **patch** according to claim 1, wherein the readily volatile ingredient has properties enhancing the permeation of active substance into the skin.

. . .

4. The active substance-containing adhesive **patch** according to claim 1, wherein the matrix layer facing the skin has pressure-sensitive

adhesive properties.

5. The active substance-containing adhesive **patch** according to claim 1, wherein the first matrix layer, during production, contains at least 40% wt. of the readily volatile. . .
6. The active substance-containing adhesive **patch** according to claim 1, wherein all matrix layers have an identical composition with regard to all the non-volatile ingredients and,. . .
7. The active substance-containing adhesive **patch** according to claim 1, wherein the first matrix layer, which contains the readily volatile ingredient, during production, has a lesser. . .
8. The active substance-containing adhesive **patch** according to claim 1, wherein the first matrix layer, which contains the readily volatile active ingredient, during production, has a. . .
9. The active substance-containing adhesive **patch** according to claim 8 wherein the layer thickness is 10 to 30 .mu.m.

10. The active substance-containing adhesive **patch** according to claim 1, wherein the readily volatile ingredient is a mixture of readily solvent substances.

11. The active substance-containing adhesive **patch** according to claim 1, wherein the active substance is acetylsalicylic acid or a pharmaceutically acceptable salt thereof.

12. The active substance-containing adhesive **patch** according to claim 10, wherein the main component of the said mixture of readily volatile substances is limonene.

13. A process for the production of an active substance-containing adhesive **patch** according to claim 1, wherein the first matrix layer, containing the readily volatile ingredient, is evenly applied to a removable. . . laminate consisting of a second matrix layer and a backing layer is laminated thereon to obtain a pharmaceutically active adhesive **patch** by migration of the readily volatile ingredient.

L12 ANSWER 24 OF 41 USPATFULL

ACCESSION NUMBER:	1998:19724 USPATFULL
TITLE:	Method and therapeutic system for smoking cessation
INVENTOR(S):	Baker, Richard W., Palo Alto, CA, United States Santus, Giancarlo, Milan, Italy Vintilla-Friedman, Susan, Cupertino, CA, United States
PATENT ASSIGNEE(S):	Pharmacia & Upjohn AB, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5721257		19980224
APPLICATION INFO.:	US 1995-484987		19950607 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-221914, filed on 31 Mar 1994, now patented, Pat. No. US 5593684 which is a continuation of Ser. No. US 1993-103262, filed on 4 Aug 1993, now patented, Pat. No. US 5362496		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Criares, Theodore J.		
LEGAL REPRESENTATIVE:	Pravel, Hewitt, Kimball & Krieger		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 12 Drawing Page(s)		
LINE COUNT:	2100		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
SUMM . . . Studies using human cadaver skin in vitro are likewise

consistent with this finding. Typical permeabilities during the first day of **patch** use are on the order of 0.1 mg/cm.sup.2 .multidot.h, increasing to 0.4 mg/cm.sup.2 .multidot.h and more at later times. Systemic. . .

SUMM . . . 1:7-10 reported on the results of a double-blind study in which they determined that long-term use of a transdermal nicotine **patch** significantly increased the quit rate in cigarette smokers. The results of this study showed that the number of abstainers in. . . group. In another study reported by Mulligan et al. (1990) Clin. Pharmacol. Ther. 47:331-337, the use of a transdermal nicotine **patch** in a 6-week placebo-controlled double-blind study resulted in a significant degree of smoking cessation. Finally, a report by Rose et. . .

SUMM . . . skin-distal side, the depot layer containing a sufficient quantity of nicotine to maintain a useful flux of nicotine from the **patch** for a total time period of 12 hours or more;

SUMM According to other embodiments, the **patch** may take the form of a reservoir system, in which the depot of nicotine is separated from the skin by a nonporous polymeric membrane, through which the nicotine diffuses at a controlled rate. The **patch** may also be in the form of a monolithic matrix, consisting of a single phase solution or mixture of nicotine. . .

DRWD FIG. 6 is a graph of nicotine delivery (mg/cm.sup.2) through 100-micron thick Elvax 880 membranes, from a **patch** containing 200 mu L pure nicotine, with a membrane area of 4.5 cm.sup.2, as a function of time (hr).

DRWD FIG. 7 is a graph of nicotine delivery (mg/cm.sup.2) through 100-micron thick Elvax 88 membranes, from a **patch** containing 200 mu L of a 5% suspension of nicotine in a 20 wt % sodium sulfate solution, with a. . .

DRWD . . . patches with nylon or polyethylene membranes, as a function of time (hr). The nicotine content is 20-25 mg, and the **patch** area is 3.9 cm.sup.2.

DRWD . . . the present invention delivering either 22 mg (.quadrature.) or 27 mg (.largecircle.) of nicotine or the PROSTEP 22 mg (.box-solid.) **patch** as a function of time (hr) .

DETD "**Essential oil**" refers to a natural oil with a distinctive scent secreted by the glands of certain aromatic plants having terpenes as. . .

DETD . . . nicotine system described in the present invention is shown in FIG. 2. Referring now to this figure, the nicotine dispensing **patch**, 1, comprises an impermeable backing layer, 2, and a monolithic matrix layer, 3, which both serves as a depot for. . .

DETD The impermeable backing layer, 2, defines the non-skin facing, or skin distal, side of the **patch** in use. The functions of the backing layer are to provide an occlusive layer that prevents loss of nicotine to the environment, and to protect the **patch**. The material chosen should therefore be nicotine resistant, and should exhibit minimal nicotine permeability. The backing layer should be opaque,. . .

DETD . . . in theory patches of this type with a bigger load can be made. Also, the amount of nicotine in the **patch** as made may exceed the delivered load because, as the **patch** becomes exhausted, there will be an insufficient concentration gradient to remove all the nicotine. Consequently, the activity of the **patch** may fall below useful levels.

DETD . . . elimination of skin irritation. The release mechanism for the nicotine is diffusion under a concentration gradient. Therefore, even if the **patch** were to be ingested, the nicotine release would be still a gradual process, and the victim would not be exposed. . .

DETD To ensure that a user cannot be exposed to a toxic dose when the **patch** is used correctly, the in vitro nicotine flux from the **patch** must stay within certain limits. This is a much more critical issue with nicotine than with most drugs, because nicotine. .

. 20-fold or more between individuals and between different skin sites on the same individual. It is thus clear that a **patch** with a large nicotine load must be able to control release of that load, such that the in vitro flux from the **patch** does not exceed about 10 times, preferably about 5 times, and more preferably about equals, the average skin permeation rate. Of course, embodiments where the in vitro flux from the **patch** is less than the skin permeation rate, such that the systemic absorption is controlled primarily by the **patch** rather than the skin, are acceptable, so long as the systemic nicotine level can be sustained above the necessary minimum. . .

DETD . . . by means of a porous or nonporous overlay coated wholly or partly with adhesive, by an adhesive layer between the **patch** and skin, or by an annulus of adhesive around the periphery of the **patch**. Of course, the mixed reservoir/monolith embodiments with adhesive medical tapes do not require additional adhesive.

DETD If an adhesive layer is to be included as an integral part of the **patch**, the adhesive should be nicotine compatible and permit a useful nicotine flux. In addition, the adhesive should satisfy the general. . .

DETD Loss of nicotine from the **patch** after manufacture should be kept to a minimum. Normally, the skin-facing side of the **patch** will be covered with a peel strip until the **patch** is used. As stressed throughout, nicotine is volatile, and retention of the nicotine load within the **patch** during storage requires that the outer **patch** layers be extremely nicotine-resistant and nicotine-impermeable. The peel strip therefore should possess the same properties as the backing layer, and. . .

DETD According to a particularly preferred embodiment, the transdermal nicotine **patch** will comprise a rounded-rectangular, "skin tone" colored **patch** on a clear, rectangular release liner. More specifically, the **patch** will comprise a flexible, occlusive film backing, a multilaminate matrix containing nicotine, a skin adhesive layer, and a protective release. . .

DETD Another embodiment of the invention is shown in FIG. 3. Referring now to this figure, the nicotine dispensing **patch**, 4, comprises an impermeable backing layer, 2, a nicotine reservoir, 5, and a polymer membrane, 6. The backing layer may. . .

DETD . . . layer. The reservoir layer does not contribute to any measurable extent to the rate-controlling mechanism. To discourage tampering with the **patch**, or misuse of the contents, it may be desirable to mix the nicotine with other materials as described in U.S.. . .

DETD If the **patch** is to be loaded with a comparatively small quantity of nicotine, then the nicotine can be conveniently kept in contact. . . can be used. The disk also decreases the user's risk of exposure to a high dose of nicotine should the **patch** become accidentally ruptured.

DETD The polymer membrane layer, 6, is the rate-controlling means that regulates the flux of nicotine from the **patch** to the skin. The criteria for selection of a suitable material are those discussed in the background section above, namely. . . should also be compatible with the other components, and workable by standard techniques that are used in fabrication of the **patch**, such as casting or heat sealing.

DETD Dense nonporous membranes have a substantial advantage over microporous materials. Microporous membranes release the contents of the **patch** by pore flow. Thus, in areas of the pores, the skin is exposed to raw nicotine. Also, in the case. . . so that the system is quickly exhausted, and the skin is flooded with excess nicotine for the life of the **patch**. In contrast, diffusion of nicotine through a nonporous film takes place by dissolution of the nicotine in the film, followed. . .

DETD Alternatively, it may be possible to purchase the membrane already in film form. This type of transdermal **patch** may be prepared by

heat-sealing the backing to the membrane layer around the perimeter of the **patch**. The nicotine formulation may be added either before or after heat sealing. If the formulation is added before heat sealing,. . .

DETD . . . the reservoir side of the membrane, the nicotine flux through the membrane remains relatively constant over the life of the **patch**.

DETD . . . discussed above, these kinds of considerations matter more when dispensing nicotine than with many other substances. Suppose that a transdermal **patch**, tested in vitro, delivers a substantial fraction of its total drug load during the first few hours, at a flux. . . The in vitro flux then falls off to levels that are well below the average skin permeation rate until the **patch** is exhausted. When this **patch** is applied to the user, the skin will be saturated with drug and the drug will pass through the skin. . .

DETD . . . depot" phenomenon may be perfectly acceptable, or even preferable, since it tends to balance out the falling flux from the **patch**.

DETD . . . patches currently available exhibit this effect and function satisfactorily in this way. However, for nicotine, the situation is different. A **patch** that can avoid this high initial drug burst, with consequent skin irritation or risk of overdose, is desirable. Any initial flux from the **patch** should not exceed a maximum of 2 mg/cm.sup.2 h, and more preferably should not exceed 1 mg/cm.sup.2 .multidot.h. Any flux. . . of the patient, and the drug flux required, it may be easier to stay within this limit with a reservoir-type **patch**. The risk of accidental overdose if the **patch** is damaged or ingested, however, is minimized with monolithic embodiments. There will therefore be circumstances where one or the other type of **patch** is preferably indicated.

DETD . . . in FIG. 4 exploits the advantages of both reservoir and monolith systems. Referring now to this figure, the nicotine dispensing **patch**, 7, comprises an impermeable backing layer, 2, a monolithic matrix layer, 3, and a polymer membrane layer, 8. The backing. . .

DETD . . . than the monolith material, so that the adhesive layer serves as a thin membrane limiting flux of nicotine from the **patch**.

DETD . . . from 3M Company. The additional resistance to permeation created by the tape assists in holding the nicotine load in the **patch** and moderates the initial high drug flux.

DETD . . . an overdose of nicotine is reduced, because the monolith cannot release its nicotine load in a single burst if the **patch** is damaged or even swallowed.

DETD . . . and 4,920,989, each of which is expressly incorporated herein by reference. More specifically, according to one embodiment, a transdermal nicotine **patch** similar to the PROSTEP.SM. will be employed. This **patch** comprises, proceeding from the visible outer surface toward the inner surface attached to the skin, (1) a foam tape and. . .

DETD Alternatively, a nicotine **patch** similar to the Habitrol.SM. **patch** can be used. This **patch** comprises, proceeding from the visible outer surface toward the inner surface attached to the skin, (1) an aluminized-backing film; (2). . .

DETD Other embodiments will employ a nicotine **patch** similar to the Nicoderm.RTM. nicotine transdermal system, available from ALZA Corporation, Palo Alto, Calif. This **patch** is a multilayered rectangular film containing nicotine as the active agent. Proceeding from the visible surface toward the surface attached. . .

DETD E. **Patch** Specifications

DETD The transdermal nicotine **patch** provides a base line or steady state nicotine level to the patient. The total amount of nicotine released by the **patch** during the period of use will vary depending on the user's body size, history of exposure to nicotine, and response. . .

DETD General guidelines for **patch** design must ensure that the patient is protected at all times from toxic doses of nicotine, and must also ensure. . . receives a dose of nicotine that will be effective for smoking cessation therapy. The in vitro flux from any individual **patch** used for the intended therapy should remain below about 800 mu g/cm.sup.2 .multidot.h, preferably below 600 mu g/cm.sup.2 .multidot.h, and more preferably below 400 mu g/cm.sup.2 .multidot.h during the life of the **patch**. Staying within these limits ensures that a patient with unusually permeable skin can never receive a toxic dose.

DETD The size of the **patch** will vary according to the amount of nicotine to be delivered. To deliver 25 mg in a 24-hour period, the **patch** would have a skin-contacting area of about 15-30 cm.sup.2. To maximize patient acceptance and compliance, and to minimize any skin irritation, the **patch** size should not exceed about 45 cm.sup.2 maximum skin covering area. With the systems and release characteristics taught by applicant, it should be possible to keep the **patch** size in the range 1-50 cm.sup.2, preferably 20-35 cm.sup.2.

DETD . . . reduces immediate metabolism by the liver and intestinal wall flora. Oral drug dosage forms (e.g., lozenge, capsule, gum, tablet, suppository, **ointment**, gel, pessary, membrane, and powder) are typically held in contact with the mucosal membrane and disintegrate and/or dissolve rapidly to. . .

DETD . . . vanilla, and the like; essential oils such as peppermint, spearmint and the like; or other flavor, such as aniseed, eucalyptus, 1-**menthol**, carvone, anethole and the like, to mask the taste of nicotine. See Hall et al. Food Technol. 14:488 (1960); 15:20. . .

DETD . . . the production of inclusion complexes of both the nicotine and the flavorant. This embodiment is employed, for example, when an **essential oil**, or other volatile flavorant, such as carvone or **menthol**, is used in the lozenge formulation. As in the case of the nicotine inclusion complexes described herein, incorporation of the. . .

DETD Whereas the **patch** serves to provide a base line or steady state nicotine level, the transmucosal administration of nicotine provides periodic transient blood. . .

DETD . . . base line level of nicotine plasma level. The present invention fulfills this objective through the use of a transdermal nicotine **patch** in combination with the transmucosal administration of nicotine, and preferably the administration of nicotine through the oral mucosa, and most preferably, with nicotine lozenges. The transdermal **patch** and the transmucosal administration of nicotine operate in a complimentary manner with the transdermal **patch** providing the steady-state systemic levels of nicotine in the bloodstream to which the smoker has become accustomed, whereas the transmucosal. . .

DETD . . . for an individualized approach to smoking cessation therapy. Specifically, the total amount of nicotine delivered, the delivery mode, i.e., via **patch** or transmucosal delivery method and regimen, i.e., the order of administration and duration of use of either the **patch** and/or the transmucosal delivery formulation, can be varied to take into account the patient's needs, e.g., the therapeutic indication, the. . .

DETD For example, according to one embodiment, the transdermal **patch** and transmucosal administration of nicotine are first used concurrently and simultaneously for a period of from about 3 to 12. . . preferably from about 4 to 8 weeks, and most preferably from about 4 to 6 weeks, in which only the **patch** or only the transmucosal nicotine formulation is used.

DETD Other embodiments will employ different dosage levels of either the **patch** and/or the transmucosal nicotine formulation to suit the needs of those patients with either a relatively high or low nicotine. . . more on the Fagerstrom test, will typically consist of three phases. During the initial phase, a high dosage nicotine transdermal **patch**, typically, with a high loading of nicotine in the range

of about 30-60 mg, and preferably, about 40-45 mg, is. . . from about 4 to 8 weeks. Typically, transmucosal administration of nicotine will be used in conjunction with this high dosage **patch**. Subsequently, a transdermal **patch** with a lower loading of nicotine, typically in the range of about 10-30 mg, and preferably, about 20-25 mg, and. . . of from about 4 to 8 weeks. Finally, for a period of from about 4 to 6 weeks, either the **patch** or the transmucosal administration of nicotine may be used alone.

DETD . . . moderate smoker, i.e., those scoring 6 or less on the Fagerstrom test. For example, during the initial phase, a transdermal **patch** with a moderate loading of nicotine, typically in the range of about 10-40 mg, and preferably, about 25-30 mg, is. . . administration of nicotine. The second phase of this smoking cessation program will consist of administration of a lower dosage transdermal **patch**, typically containing nicotine in the range of about 10-30 mg, and preferably, about 20-25 mg, optionally, with the transmucosal administration. . . used for a period of from about 4 to 8 weeks. During the final phase or weaning period, either the **patch** or transmucosal administration will be used alone.

DETD . . . cessation program for the light smoker can be developed using the compositions and methods described herein. For example, a transdermal **patch** containing a relatively low loading of nicotine, typically containing nicotine in the range of about 10-30 mg, and preferably, about. . . used for a period of from about 4 to 8 weeks. During the final phase or weaning period, either the **patch** or the transmucosal formulation will be used alone.

DETD . . . cigarette smoking. Thus, and with many patients, it is possible to reduce the incidence of smoking with either the transdermal **patch** or the transmucosal formulation alone.

DETD TABLE III

Property	Low Dosage **Patch**	High Dosage **Patch**
Dosage Strength	22 mg/20 cm.sup.2	27 mg/20 cm.sup.2
Size (cm.sup.2)	20	20
Nicotine content (mg)	31.4	37.7
24 Hour Delivery (mg).sup.2	22	27
Flux (mg/cm.sup.2 /24 hour).sup.3	1.1	1.35
Total Nicotine Delivered (%)	73	75
Patch Weight (mg)	837	843
Thickness (microns)	333	344

.sup.2 Based on residual content from in vivo performance.
.sup.3 Estimated from in. . .

DETD TABLE IV

Composition	Nicotine **Patch** A	Nicotine **Patch** B
Dosage	22 mg/20 cm.sup.2	27 mg/20 cm.sup.2
Nicotine content (mg)	31.4	37.7
Acrylic adhesive matrix (mg)		

70.2 70.2

Butylated hydroxytoluene (mg)

0.6 0.6

Polyester. . .

DETD The **patch**-making procedure and release tests described in Example 9 were repeated using the same membrane, but with a load of 200. . .

DETD The **patch**-making procedure and release tests described in Example 11 were repeated with a 22- mu m thick film of Sclairfilm HD-2-PA as the membrane. The flux from the **patch** remained roughly constant at about 80 mu g/cm.sup.2 .multidot.h for the first 60 hours, falling to about 30 mu g/cm.sup.2. . .

DETD The **patch**-making procedure and release tests described in Example 11 were repeated with a 50- mu m thick film of Sclairfilm HD-2-PA as the membrane. The flux from the **patch** remained roughly constant at about 45-50 mu g/cm.sup.2 .multidot.h.

DETD For Example 24, the monolith contained 37 mg of nicotine, with a **patch** area of 5 cm.sup.2. For Example 25, the monolith contained 74 mg of nicotine, with a **patch** area of 10 cm.sup.2. For Example 26, the monolith contained 60 mg of nicotine, with a **patch** area of 20 cm.sup.2. For Example 27, the monolith contained 54 mg of nicotine, with a **patch** area of 30 cm.sup.2.

DETD . . . systems used were manufactured as described in Examples 24-27, and each contained a total of 37 mg nicotine in a **patch** with an area of 5 cm.sup.2, as in Example 24. For Example 28, a single 5 cm.sup.2 transdermal nicotine **patch** was applied to the right forearm of each subject, and the **patch** remained affixed to the forearm for 16 hours. The lowest curve presents the average nicotine plasma level obtained. For Example. . .

DETD . . . state pharmacokinetics of the 22 and 27 mg patches of the present invention with the PROSTEP 22 mg transdermal nicotine **patch**, available from elan pharma, Ltd., Athlone, County Westmeath, Ireland, and manufactured by Lederle Laboratories Division, American Cyanamid Company, Pearl River,. . .

DETD . . . five consecutive days of the treatment period. The resulting blood plasma levels, along with those of the PROSTEP 22 mg **patch** are shown in FIG. 14. The patches of the present invention were well tolerated.

DETD TABLE VI

Transdermal **Patch**.sup.5	Cmax.sup.6 (ng/mL)	Cavg.sup.7 (ng/mL)	Cmin.sup.8 (ng/mL)	Tmax.sup.9 (hrs)
Habitrol .TM. (21 mg/day).sup.10	17 .+-. 2	13 .+-. 2	9 .+-. 2	6 .+-. 3
PROSTEP .TM. (21 mg/day)	16. . .	11 .+-. 3		4 .+-. 3
NICOTROL .SM. (15 mg/day)	13.0 .+-. 3.1	8.7 .+-. 2.1	2.5 .+-. 0.8	8 .+-. 3
PATCH OF	16.1 .+-. 7.1			

11.2 .+-. 4.1

4.8 .+-. 1.8

8.4 .+-. 1.8

EXAMPLE 1
(22 mg/day)
PATCH OF 23.4 .+-. 8.1

14.5 .+-. 3.3

5.7 .+-. 1.9

8.4 .+-. 3.3

EXAMPLE 2
(27 mg/day)

.sup.5 Competitor product data taken. . .

CLM What is claimed is:

. . . skin-distal side, the depot layer containing a sufficient quantity of nicotine to maintain a useful flux of nicotine from the **patch** for a total time period of 12 hours or more; ii) an occlusive backing layer in contact with and covering. . .

L12 ANSWER 25 OF 41 USPATFULL

ACCESSION NUMBER: 97:120298 USPATFULL

TITLE: Water-soluble pressure-sensitive mucoadhesive and devices provided therewith for emplacement in a mucosa-lined body cavity

INVENTOR(S): Biegajski, James E., Foster City, CA, United States
Venkatraman, Subbu S., Palo Alto, CA, United States
Scott, Ann M., Mountain View, CA, United States

PATENT ASSIGNEE(S): Cygnus, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5700478		19971223	
	WO 9505416		19950223	
APPLICATION INFO.:	US 1995-505185		19950803	(8)
	WO 1994-US9305		19940819	
			19950803	PCT 371 date
			19950803	PCT 102(e) date

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Azpuru, Carlos A.
LEGAL REPRESENTATIVE: Morrison & Foerster LLP
NUMBER OF CLAIMS: 45
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 2104
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . No. 4,948,580 describes a bioadhesive composition for delivery of anti-bacterials, including a copolymer of ("PVME/MA"), and gelatin, dispersed in an **ointment** base.

SUMM . . . or tablet form, may be used. For relief of cough, for example, substances such as dextromethorphan HBr, noscpine, codeine phosphate, **menthol**, and the like, may be used. Further, both a sore throat medication and a cough suppressant can be combined within. . .

SUMM . . . can be used as part of a system for delivery of substances through the oral mucosa (as a buccal transmucosal **patch**), or for delivery of substances into the oral cavity itself.

SUMM . . . disperses within the oral cavity. Such additional ingredients include, for example, sweeteners such as aspartame, and breath fresheners such as **menthol**.

SUMM In some embodiments the odorant is an **essential oil** of a plant material, or a refined fraction of an **essential oil**, or a combination of the chief aromatic constituents of an **essential oil**. Preferably the odorant is a mint

odorant. We have discovered that, surprisingly, the essential oils that are commonly used as. . .

DRWD FIG. 17 is a graph comparing **menthol** release over time from a breath freshening device according to the invention and from a conventional commercially marketed "breath mint"(Certs.RTM.).

DETD . . . other flavors, deodorants such as for example the odor-preventive antimicrobial CPC, anti-bacterials such as chlorhexidine, sore-throat medicants such as Hexylresorcinol/Phenol derivatives/**Menthol**, cough suppressants such as Dextrathomorphan Hydochloride, agents to prevent mouth dryness, benzocaine for treatment of rhinitis, etc.

DETD . . . alternatively) act to inhibit crystallization of some active substances that might otherwise occur at the loading concentrations employed (for example, **menthol**).

DETD

Glycerin	1.0 grams
Cineole	1.0 grams
Aspartame	0.3 grams
Menthol	1.7 grams
HPC Klucel LF	16 grams

DETD . . . have an active substance-containing layer weighing approximately 100 milligrams. Such a layer (and the disc) therefore contains 8.5 milligrams of **menthol** and 5 milligrams of cineole.

DETD

Glycerin	2.0 grams
Dyclonine HCl	0.6 grams
Menthol	1.0 grams
Aspartame	0.3 grams
HPC Klucel LF	16.1 grams

DETD . . . have an active substance-containing layer weighing approximately 100 milligrams. Such a layer (and the disc) therefore contains 5 mg of **menthol** and 3 mg of Dyclonine HCl.

DETD . . . particular flavor, even where the flavor that is recalled is in fact complex. Such character impact compounds include, for example, **Menthol** (having the character impact of peppermint); L-Carvone (spearmint); Methyl salicylate (wintergreen); and Citral (lemon).

DETD . . . layer of a breath freshening device according to the invention is to add to the polymer of the layer an **essential oil** (i.e., a **volatile oil**) of a plant material. The Source Book of Flavors describes essential oils that are in common use in the flavoring. . .

DETD . . . the Source Book of Flavors. They include, particularly for example, oil of peppermint, the chief aromatic constituents of which are **menthol**, merithone, and menthyl acetate; oil of spearmint, the chief aromatic constituent of which is L-Carvone; and oil of wintergreen, the. . .

DETD

menthofuran (GLC)	02.6%
menthol	57.0
menthone	24.8
menthyl acetate	07.4

DETD "310-30B#2": 40% RPC HF; 35.5% PVP 90 F; 20% RPC LF; 2% Mentha Oil; 2% **Menthol**; 0.5% Fennel Oil (described in Hisahige JP 63-209797).

DETD "310-44" 44.5% PVP 90 F; 30% HPC LF; 10% RPC RF; 10% PEG 400; 2.5% **Menthol**; 2.0% Mentha Oil; 1.0% Fennel Oil (described in Hisahige JP 63-209797).

DETD . . . described in Example XVII. Portions of the film 1/2 inch in diameter and 25 mils thick, each containing 8.6 mg **menthol** were immersed in distilled water, and breath mint tablets each

containing 4.3 mg **menthol** were immersed in distilled water in separate flasks, and the flasks were continuously shaken. Samples were withdrawn from the flasks after elapsed times of 15 min., 30 min., 45 min., 60 min., and 120 min., and the quantity of **menthol** was analyzed by gas chromatography.

DETD . . . average, the breath freshening device of the invention had by the first (fifteen minute) sample interval released about 0.7 mg **menthol**, and thereafter the device delivered **menthol** at a continuous steady rate throughout the sampling period; at the two hour sampling interval, approximately 2.0 mg of the original 8.6 mg of **menthol** had been released from the device, and rate of delivery was continuing at slightly less than 0.25 mg per hour.. . . By contrast, each breath mint had on average by the first sampling interval released nearly half its total quantity of **menthol**, and had nearly exhausted their delivery capacity at the second (thirty minute) sampling interval.

DETD . . . and a flavor imparting a different taste or odor can be added instead. Also, the loading of actives dydonine HCl, **menthol**, and cineole can be controlled by either varying the concentration or changing the thickness of the disc. Other active substances. . .

CLM What is claimed is:

. . . composite of claim 26 wherein the active ingredient is selected from the group consisting of dextromethorphan HBR, nospine, codeine phosphate, **menthol**.

L12 ANSWER 26 OF 41 USPATFULL

ACCESSION NUMBER:	97:114950 USPATFULL		
TITLE:	Release controlled transdermal therapeutic system		
INVENTOR(S):	Mori, Masao, Toyama, Japan		
PATENT ASSIGNEE(S):	Lead Chemical Co., Ltd., Toyama, Japan (non-U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5695779		19971209
APPLICATION INFO.:	US 1996-638565		19960426 (8)
	NUMBER		DATE
PRIORITY INFORMATION:	JP 1995-7129305		19950428
	JP 1996-8087646		19960315
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Phelan, D. Gabrielle		
LEGAL REPRESENTATIVE:	Oliff & Berridge		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	556		

SUMM The present invention also relates to a tape preparation or a **patch** type adhesive preparation using those systems.

DRWD FIG. 3 is an explanatory view of a adhesive layer in one embodiment of a **patch** type adhesive preparation according to the present invention;

DRWD FIG. 4 is a cross-sectional view of the **patch** type adhesive preparation according to the present invention;

DRWD FIG. 5 is an explanatory view of the adhesive layer in another embodiment of the **patch** type adhesive preparation according to the present invention; and

DRWD FIG. 6 is a cross-sectional view of further another embodiment of the **patch** type adhesive preparation according to the present invention.

DETD . . . that do not dissolve the wall material. Examples of the drugs

that can be used include methyl salicylate, glycol salicylate, l-**menthol**, dl-**menthol**, dl-camphor, d-borneol, peppermint oil, cayene pepper extract, vanyllamide nonylate, diphenhydramine salicylate, nitroglycerin, isosorbide dinitrate, flurbiprofen, ketoprofen, indomethacin, loxoprofen sodium, lbuprofen,. . .

DETD . . . system according to the present invention can be used in any optional form such as a tape preparation, and a **patch** type adhesive preparation.

DETD FIGS. 3 and 4 show another embodiment of the **patch** type adhesive preparation, and FIGS. 5 and 6 show further another embodiment of the **patch** type adhesive preparation. In those **patch** adhesive preparations, the adhesive can be prepared in the same manner as in the tape preparation that the rubbery adhesive. . .

DETD The **patch** type adhesive preparation can be prepared by the following manner. The adhesive is applied to a part such as a. . .

DETD . . . high dissolution property of natural rubber and synthetic rubbers, and the examples thereof include toluene, n-hexane, isohexane, cyclohexane, and a **volatile oil** for rubber.

CLM What is claimed is:

11. A **patch** adhesive preparation which is obtained by the steps of: dissolving a rubber adhesive comprising a rubber adhesive component, a tackifier,. . .

L12 ANSWER 27 OF 41 USPATFULL

ACCESSION NUMBER:	97:3536 USPATFULL
TITLE:	Method and therapeutic system for smoking cessation
INVENTOR(S):	Baker, Richard W., Palo Alto, CA, United States Santus, Giancarlo, Milan, Italy Vintilla-Friedman, Susan, Cupertino, CA, United States
PATENT ASSIGNEE(S):	Pharmacia AB, Sweden (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5593684		19970114
APPLICATION INFO.:	US 1994-221914		19940331 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-103262, filed on 4 Aug 1993, now patented, Pat. No. US 5362496		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Criares, Theodore J.		
LEGAL REPRESENTATIVE:	Pravel, Hewitt, Kimball & Krieger		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 12 Drawing Page(s)		
LINE COUNT:	2219		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . Studies using human cadaver skin in vitro are likewise consistent with this finding. Typical permeabilities during the first day of **patch** use are on the order of 0.1 mg/cm.sup.2 .multidot.h, increasing to 0.4 mg/cm.sup.2 .multidot.h and more at later times. Systemic. . .

SUMM . . . 1:7-10 reported on the results of a double-blind study in which they determined that long-term use of a transdermal nicotine **patch** significantly increased the quit rate in cigarette smokers. The results of this study showed that the number of abstainers in. . . group. In another study reported by Mulligan et al. (1990) Clin. Pharmacol. Ther. 47:331-337, the use of a transdermal nicotine **patch** in a 6-week placebo-controlled double-blind study resulted in a significant degree of smoking cessation. Finally, a report by Rose et. . .

SUMM . . . skin-distal side, the depot layer containing a sufficient quantity of nicotine to maintain a useful flux of nicotine from the **patch** for a total time period of 12 hours or more;

SUMM According to other embodiments, the **patch** may take the form of

a reservoir system, in which the depot of nicotine is separated from the skin by a nonporous polymeric membrane, through which the nicotine diffuses at a controlled rate. The **patch** may also be in the form of a monolithic matrix, consisting of a single phase solution or mixture of nicotine. . .

DRWD FIG. 6 is a graph of nicotine delivery (mg/cm.sup.2) through 100-micron thick Elvax 880 membranes, from a **patch** containing 200 mu L pure nicotine, with a membrane area of 4.5 cm.sup.2, as a function of time (hr).

DRWD FIG. 7 is a graph of nicotine delivery (mg/cm.sup.2) through 100-micron thick Elvax 88 membranes, from a **patch** containing 200 mu L of a 5% suspension of nicotine in a 20 wt sodium sulfate solution, with a membrane. . .

DRWD . . . patches with nylon or polyethylene membranes, as a function of time (hr). The nicotine content is 20-25 mg, and the **patch** area is 3.9 cm.sup.2.

DRWD . . . the present invention delivering either 22 mg (.quadrature.) or 27 mg (o) of nicotine or the PROSTEP 22 mg (.box-solid.) **patch** as a function of time (hr) .

DETD "**Essential oil**" refers to a natural oil with a distinctive scent secreted by the glands of certain aromatic plants having terpenes as. . .

DETD . . . nicotine system described in the present invention is shown in FIG. 2. Referring now to this figure, the nicotine dispensing **patch**, 1, comprises an impermeable backing layer, 2, and a monolithic matrix layer, 3, which both serves as a depot for. . .

DETD The impermeable backing layer, 2, defines the nonskin facing, or skin distal, side of the **patch** in use. The functions of the backing layer are to provide an occlusive layer that prevents loss of nicotine to the environment, and to protect the **patch**. The material chosen should therefore be nicotine resistant, and should exhibit minimal nicotine permeability. The backing layer should be opaque,. . .

DETD . . . in theory patches of this type with a bigger load can be made. Also, the amount of nicotine in the **patch** as made may exceed the delivered load because, as the **patch** becomes exhausted, there will be an insufficient concentration gradient to remove all the nicotine. Consequently, the activity of the **patch** may fall below useful levels.

DETD . . . elimination of skin irritation. The release mechanism for the nicotine is diffusion under a concentration gradient. Therefore, even if the **patch** were to be ingested, the nicotine release would be still a gradual process, and the victim would not be exposed. . .

DETD To ensure that a user cannot be exposed to a toxic dose when the **patch** is used correctly, the in vitro nicotine flux from the **patch** must stay within certain limits. This is a much more critical issue with nicotine than with most drugs, because nicotine. . . 20-fold or more between individuals and between different skin sites on the same individual. It is thus clear that a **patch** with a large nicotine load must be able to control release of that load, such that the in vitro flux from the **patch** does not exceed about 10 times, preferably about 5 times, and more preferably about equals, the average skin permeation rate. Of course, embodiments where the in vitro flux from the **patch** is less than the skin permeation rate, such that the systemic absorption is controlled primarily by the **patch** rather than the skin, are acceptable, so long as the systemic nicotine level can be sustained above the necessary minimum. . .

DETD . . . by means of a porous or nonporous overlay coated wholly or partly with adhesive, by an adhesive layer between the **patch** and skin, or by an annulus of adhesive around the periphery of the **patch**. Of course, the mixed reservoir/monolith embodiments with adhesive medical tapes do not require additional adhesive.

DETD If an adhesive layer is to be included as an integral part of the

patch, the adhesive should be nicotine compatible and permit a useful nicotine flux. In addition, the adhesive should satisfy the general. . .

DETD Loss of nicotine from the **patch** after manufacture should be kept to a minimum. Normally, the skin-facing side of the **patch** will be covered with a peel strip until the **patch** is used. As stressed throughout, nicotine is volatile, and retention of the nicotine load within the **patch** during storage requires that the outer **patch** layers be extremely nicotine-resistant and nicotine-impermeable. The peel strip therefore should possess the same properties as the backing layer, and. . .

DETD According to a particularly preferred embodiment, the transdermal nicotine **patch** will comprise a rounded-rectangular, "skin tone" colored **patch** on a clear, rectangular release liner. More specifically, the **patch** will comprise a flexible, occlusive film backing, a multilaminate matrix containing nicotine, a skin adhesive layer, and a protective release. . .

DETD Another embodiment of the invention is shown in FIG. 3. Referring now to this figure, the nicotine dispensing **patch**, 4, comprises an impermeable backing layer, 2, a nicotine reservoir, 5, and a polymer membrane, 6. The backing layer may. . .

DETD . . . layer. The reservoir layer does not contribute to any measurable extent to the rate-controlling mechanism. To discourage tampering with the **patch**, or misuse of the contents, it may be desirable to mix the nicotine with other materials as described in U.S.. . .

DETD If the **patch** is to be loaded with a comparatively small quantity of nicotine, then the nicotine can be conveniently kept in contact. . . can be used. The disk also decreases the user's risk of exposure to a high dose of nicotine should the **patch** become accidentally ruptured.

DETD The polymer membrane layer, 6, is the rate-controlling means that regulates the flux of nicotine from the **patch** to the skin. The criteria for selection of a suitable material are those discussed in the background section above, namely. . . should also be compatible with the other components, and workable by standard techniques that are used in fabrication of the **patch**, such as casting or heat sealing.

DETD Dense nonporous membranes have a substantial advantage over microporous materials. Microporous membranes release the contents of the **patch** by pore flow. Thus, in areas of the pores, the skin is exposed to raw nicotine. Also, in the case. . . so that the system is quickly exhausted, and the skin is flooded with excess nicotine for the life of the **patch**. In contrast, diffusion of nicotine through a nonporous film takes place by dissolution of the nicotine in the film, followed. . .

DETD Alternatively, it may be possible to purchase the membrane already in film form. This type of transdermal **patch** may be prepared by heat-sealing the backing to the membrane layer around the perimeter of the **patch**. The nicotine formulation may be added either before or after heat sealing. If the formulation is added before heat sealing,. . .

DETD . . . the reservoir side of the membrane, the nicotine flux through the membrane remains relatively constant over the life of the **patch**.

DETD . . . discussed above, these kinds of considerations matter more when dispensing nicotine than with many other substances. Suppose that a transdermal **patch**, tested in vitro, delivers a substantial fraction of its total drug load during the first few hours, at a flux. . . The in vitro flux then falls off to levels that are well below the average skin permeation rate until the **patch** is exhausted. When this **patch** is applied to the user, the skin will be saturated with drug and the drug will pass through the skin. . .

DETD . . . depot" phenomenon may be perfectly acceptable, or even preferable, since it tends to balance out the falling flux from the

patch.

DETD . . . patches currently available exhibit this effect and function satisfactorily in this way. However, for nicotine, the situation is different. A **patch** that can avoid this high initial drug burst, with consequent skin irritation or risk of overdose, is desirable. Any initial flux from the **patch** should not exceed a maximum of 2 mg/cm.sup.2 .multidot.h, and more preferably should not exceed 1 mg/cm.sup.2 .multidot.h. Any flux. . . of the patient, and the drug flux required, it may be easier to stay within this limit with a reservoir-type **patch**. The risk of accidental overdose if the **patch** is damaged or ingested, however, is minimized with monolithic embodiments. There will therefore be circumstances where one or the other type of **patch** is preferably indicated.

DETD . . . in FIG. 4 exploits the advantages of both reservoir and monolith systems. Referring now to this figure, the nicotine dispensing **patch**, 7, comprises an impermeable backing layer, 2, a monolithic matrix layer, 3, and a polymer membrane layer, 8. The backing. . .

DETD . . . than the monolith material, so that the adhesive layer serves as a thin membrane limiting flux of nicotine from the **patch**.

DETD . . . from 3M Company. The additional resistance to permeation created by the tape assists in holding the nicotine load in the **patch** and moderates the initial high drug flux.

DETD . . . an overdose of nicotine is reduced, because the monolith cannot release its nicotine load in a single burst if the **patch** is damaged or even swallowed.

DETD . . . and 4,920,989, each of which is expressly incorporated herein by reference. More specifically, according to one embodiment, a transdermal nicotine **patch** similar to the PROSTEP.SM. will be employed. This **patch** comprises, proceeding from the visible outer surface toward the inner surface attached to the skin, (1) a foam tape and. . .

DETD Alternatively, a nicotine **patch** similar to the Habitrol.SM. **patch** can be used. This **patch** comprises, proceeding from the visible outer surface toward the inner surface attached to the skin, (1) an aluminized-backing film; (2). . .

DETD Other embodiments will employ a nicotine **patch** similar to the Nicoderm.RTM. nicotine transdermal system, available from ALZA Corporation, Palo Alto, Calif. This **patch** is a multilayered rectangular film containing nicotine as the active agent. Proceeding from the visible surface toward the surface attached. . .

DETD E. **Patch** Specifications

DETD The transdermal nicotine **patch** provides a base line or steady state nicotine level to the patient. The total amount of nicotine released by the **patch** during the period of use will vary depending on the user's body size, history of exposure to nicotine, and response. . .

DETD General guidelines for **patch** design must ensure that the patient is protected at all times from toxic doses of nicotine, and must also ensure. . . receives a dose of nicotine that will be effective for smoking cessation therapy. The in vitro flux from any individual **patch** used for the intended therapy should remain below about 800 mu g/cm.sup.2 .multidot.h, preferably below 600 mu g/cm.sup.2 .multidot.h, and more preferably below 400 mu g/cm.sup.2 .multidot.h during the life of the **patch**. Staying within these limits ensures that a patient with unusually permeable skin can never receive a toxic dose.

DETD The size of the **patch** will vary according to the amount of nicotine to be delivered. To deliver 25 mg in a 24-hour period, the **patch** would have a skin-contacting area of about 15-30 cm.sup.2. To maximize patient acceptance and compliance, and to minimize any skin irritation, the **patch** size should not exceed about 45 cm.sup.2 maximum skin covering area. With the systems and release characteristics taught by applicant, it should be possible to keep the **patch**

size in the range 1-50 cm.sup.2, preferably 20-35 cm.sup.2.

DETD . . . reduces immediate metabolism by the liver and intestinal wall flora. Oral drug dosage forms (e.g., lozenge, capsule, gum, tablet, suppository, **ointment**, gel, pessary, membrane, and powder) are typically held in contact with the mucosal membrane and disintegrate and/or dissolve rapidly to. . .

DETD . . . vanilla, and the like; essential oils such as peppermint, spearmint and the like; or other flavor, such as aniseed, eucalyptus, 1-**menthol**, carvone, anethole and the like, to mask the taste of nicotine. See Hall et al. Food Technol. 14:488 (1960); 15:20. . .

DETD . . . the production of inclusion complexes of both the nicotine and the flavorant. This embodiment is employed, for example, when an **essential oil**, or other volatile flavorant, such as carvone or **menthol**, is used in the lozenge formulation. As in the case of the nicotine inclusion complexes described herein, incorporation of the. . .

DETD Whereas the **patch** serves to provide a base line or steady state nicotine level, the transmucosal administration of nicotine provides periodic transient blood. . .

DETD . . . base line level of nicotine plasma level. The present invention fulfills this objective through the use of a transdermal nicotine **patch** in combination with the transmucosal administration of nicotine, and preferably the administration of nicotine through the oral mucosa, and most preferably, with nicotine lozenges. The transdermal **patch** and the transmucosal administration of nicotine operate in a complimentary manner with the transdermal **patch** providing the steady-state systemic levels of nicotine in the bloodstream to which the smoker has become accustomed, whereas the transmucosal. . .

DETD . . . for an individualized approach to smoking cessation therapy. Specifically, the total amount of nicotine delivered, the delivery mode, i.e., via **patch** or transmucosal delivery method and regimen, i.e., the order of administration and duration of use of either the **patch** and/or the transmucosal delivery formulation, can be varied to take into account the patient's needs, e.g., the therapeutic indication, the. . .

DETD For example, according to one embodiment, the transdermal **patch** and transmucosal administration of nicotine are first used concurrently and simultaneously for a period of from about 3 to 12. . . preferably from about 4 to 8 weeks, and most preferably from about 4 to 6 weeks, in which only the **patch** or only the transmucosal nicotine formulation is used.

DETD Other embodiments will employ different dosage levels of either the **patch** and/or the transmucosal nicotine formulation to suit the needs of those patients with either a relatively high or low nicotine. . . more on the Fagerstrom test, will typically consist of three phases. During the initial phase, a high dosage nicotine transdermal **patch**, typically, with a high loading of nicotine in the range of about 30-60 mg, and preferably, about 40-45 mg, is. . . from about 4 to 8 weeks. Typically, transmucosal administration of nicotine will be used in conjunction with this high dosage **patch**. Subsequently, a transdermal **patch** with a lower loading of nicotine, typically in the range of about 10-30 mg, and preferably, about 20-25 mg, and. . . of from about 4 to 8 weeks. Finally, for a period of from about 4 to 6 weeks, either the **patch** or the transmucosal administration of nicotine may be used alone.

DETD . . . moderate smoker, i.e., those scoring 6 or less on the Fagerstrom test. For example, during the initial phase, a transdermal **patch** with a moderate loading of nicotine, typically in the range of about 10-40 mg, and preferably, about 25-30 mg, is. . . administration of nicotine. The second phase of this smoking cessation program will consist of administration of a lower dosage transdermal **patch**, typically containing nicotine in the range of about 10-30 mg, and preferably, about 20-25 mg, optionally, with the transmucosal administration. . . used for a period of from about 4 to 8 weeks.

During the final phase or weaning period, either the **patch** or transmucosal administration will be used alone.

DETD . . . cessation program for the light smoker can be developed using the compositions and methods described herein. For example, a transdermal **patch** containing a relatively low loading of nicotine, typically containing nicotine in the range of about 10-30 mg, and preferably, about. . . used for a period of from about 4 to 8 weeks. During the final phase or weaning period, either the **patch** or the transmucosal formulation will be used alone.

DETD . . . cigarette smoking. Thus, and with many patients, it is possible to reduce the incidence of smoking with either the transdermal **patch** or the transmucosal formulation alone.

DETD TABLE III

Property	Low Dosage **Patch**	High Dosage **Patch**
Dosage Strength	22 mg/20 cm.sup.2	27 mg/20 cm.sup.2
Size (cm.sup.2)	20	20
Nicotine content (mg)	31.4	37.7
24 Hour Delivery (mg).sup.2	22	27
Fluz (mg/cm.sup.2 /24 hour).sup.3	1.1	1.35
Total Nicotine Delivered (%)	73	75
Patch Weight (mg)	837	843
Thickness (micron)	333	344

.sup.2 Based on residual content from in vivo performance.

.sup.3 Estimated from in vivo performance.

DETD TABLE IV

Composition	Nicotine **Patch** A	Nicotine **Patch** B
Dosage	22 mg/20 cm2	27 mg/20 cm2
Nicotine content (mg)	31.4	37.7
Acrylic adhesive matrix (mg)	70.2	70.2
Butylated hydroxytoluene (mg)	0.6	0.6
Polyester film	76.0. . .	

DETD The **patch**-making procedure and release tests described in Example 9 were repeated using the same membrane, but with a load of 200. . .

DETD The **patch**-making procedure and release tests described in Example 11 were repeated with a 22- mu m thick film of Sclairfilm HD-2-PA as the membrane. The flux from the **patch** remained roughly constant at about 80 mu g/cm.sup.2 .multidot.h for the first 60

hours, falling to about 30 mu g/cm.sup.2. . .

DETD The **patch**-making procedure and release tests described in Example 11 were repeated with a 50- mu m thick film of Sclairfilm LWS-2-PA as the membrane. The flux from the **patch** remained roughly constant at about 45-50 mu g/cm.sup.2 .multidot.h.

DETD For Example 24, the monolith contained 37 mg of nicotine, with a **patch** area of 5 cm.sup.2. For Example 25, the monolith contained 74 mg of nicotine, with a **patch** area of 10 cm.sup.2. For Example 26, the monolith contained 60 mg of nicotine, with a **patch** area of 20 cm.sup.2. For Example 27, the monolith contained 54 mg of nicotine, with a **patch** area of 30 cm.sup.2 .

DETD . . . systems used were manufactured as described in Examples 24-27, and each contained a total of 37 mg nicotine in a **patch** with an area of 5 cm.sup.2, as in Example 24. For Example 28, a single 5 cm.sup.2 transdermal nicotine **patch** was applied to the right forearm of each subject, and the **patch** remained affixed to the forearm for 16 hours. The lowest curve presents the average nicotine plasma level obtained. For Example. . .

DETD . . . state pharmacokinetics of the 22 and 27 mg patches of the present invention with the PROSTEP 22 mg transdermal nicotine **patch**, available from elan pharma, Ltd., Athlone, County Westmeath, Ireland, and manufactured by Lederle Laboratories Division, American Cyanamid Company, Pearl River,. . .

DETD . . . five consecutive days of the treatment period. The resulting blood plasma levels, along with those of the PROSTEP 22 mg **patch** are shown in FIG. 14. The patches of the present invention were well tolerated.

DETD TABLE VI

Transdermal **Patch**.sup.5	Cmax.sup.6 (ng/mL)	Cavg.sup.7 (ng/mL)	Cmin.sup.8 (ng/mL)	Tmax.sup.9 (hrs)
Habitrol .TM. (21 mg/day).sup.10	17 .+-. 2	13 .+-. 2	9 .+-. 2	6 .+-. 3
PROSTEP .TM. (21 mg/day)	16 .+-.. . .	4	11.+-. 3	4 .+-. 3
NICOTROL .SM. (15 mg/day)	13.0 .+-. 3.1	8.7 .+-. 2.1	2.5 .+-. 0.8	8 .+-. 3
PATCH OF EXAMPLE 1 (22 mg/day)	16.1 .+-. 7.1	11.2 .+-. 4.1	4.8 .+-. 1.8	8.4 .+-. 1.8
PATCH OF	23.4 .+-. 8.1	14.5 .+-. 3.3	5.7 .+-. 1.9	8.4 .+-. 3.3

EXAMPLE 2
(27 mg/day)

.sup.5 Competitor product data taken. . .
CLM What is claimed is:
. . . skin-distal side, the depot layer containing a sufficient quantity of nicotine to maintain a useful flux of nicotine from the **patch** for a total time period of 12 hours or more; (b) an occlusive backing layer in contact with and covering. . .

L12 ANSWER 28 OF 41 USPATFULL
ACCESSION NUMBER: 95:38703 USPATFULL
TITLE: Lice repellant composition
INVENTOR(S): Eini, Meir, Ness Ziona, Israel
Tamarkin, Dov, Jerusalem, Israel
PATENT ASSIGNEE(S): Clilco Ltd., Ness Ziona, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5411992		19950502
APPLICATION INFO.:	US 1993-55986		19930429 (8)

DISCLAIMER DATE: 20100713
RELATED APPLN. INFO.: Continuation of Ser. No. US 1992-902415, filed on 19 Jun 1992, now patented, Pat. No. US 5227163 which is a continuation of Ser. No. US 1991-642806, filed on 18 Jan 1991, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rollins, John W.
LEGAL REPRESENTATIVE: Friedman, Mark M.
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 712
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . cis-verbenol; C.sub.10 H.sub.18 O compounds, myrtanol, iso-pinocampheol, dihydrocarveol, isopulegol, terpineol, terpinen-4-ol, nerol, geraniol, and linalool, and C.sub.10 H.sub.20 O compounds, **menthol**, .beta.-citronellol, and dihydro-myrcenol.
DETD . . . in diameter) was secured in a petri-dish. A 100 .mu.l portion of the test solution was placed on a corduroy **patch** (1.5 cm.sup.2). The material was allowed to dry for 30 min. at room temperature (20.degree..+-.3.degree. C.) and the **patch** was placed at the periphery of the petri-dish. A **patch** treated with a control solution (96% Ethanol) was placed on the opposite side of the dish. Twenty female lice which. . .
DETD T=number of lice on the treated **patch**
DETD C=number of lice on the untreated **patch**
DETD . . . 0.070 0.049 0.020
0.014

NELLOL
.alpha.-TERPINEOL
0.080 0.056 0.040
0.028

GERANIOL 0.020 0.014 0.005
0.004

LINALOOL 0.080 0.056 0.020
0.014

MENTHOL 0.150 0.105 0.030
0.021

DIHYDRO 0.800 0.560 0.600
0.420

MYRCENOL
ISOPINO- 0.300 0.210 0.200

0.140

CAMPHEOL
TERPINEN- 0.090 0.063 0.020
. . . 0.400

0.280

RC = Repellency concentration = (1 - T/C) .times. 100
T = Number of lice on the treated **patch**
C = Number of lice on the untreated **patch**
RD = Repellency dosage in mg/cm.sup.2
RC.sub.80 = Concentration giving 80% repellency
RC.sub.50 = Concentration giving 50% repellency
RD.sub.80 =. . .

DETD LICE-FREE GEL contains 46.6% purified water, 45% alcohol, 2% diethyl toluamide, 2% methyl lactate, 2% **menthol**, 0.9% Carbomer.TM. 940, and 1.5% Triethanolamin.

DETD . . . of lice infestation, containing 50% purified water, 42% alcohol, 2% Diethyl Toluamide, 2% Diethyl Phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was examined in a controlled field study. This study, after receiving the authorization of the Helsinki Committee, was conducted by. . .

DETD The test product, containing 50% purified water, 42% alcohol, 2% Diethyl Toluamide, 2% diethyl phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was provided to the nurses. The product is presented in a spray bottle, equipped with a nozzle of 0.10 ml.. .

CLM What is claimed is:

. . . or an animal, wherein the terpenoid is selected from the group consisting of a terpene-ol other than linalool, terpene ester, **essential oil** containing at least 40% terpene-ol or terpene-ester, cytral, nerol, ionone, dihydrocarvone, and pullegone, wherein the composition does not contain any. . .

. . . is selected from the group consisting of perillyl alcohol, carveol, myrtenol, cis-verbenol, myrtanol, isopinocampheol, dihydrocarveol, isopulegol, terpineol, terpinen-4-ol, nerol, geraniol, **menthol**, .beta.-citronellol, and dihydromyrcenol.

. . . of essential oils containing at least 40% terpene-ol or terpene ester, further comprising a fragrance other than the terpene-ol or **essential oil** containing terpene-ol or terpene ester.

. . . an animal susceptible to lice infestation an effective amount to repel but not kill lice of a composition comprising linalool, **essential oil** containing at least 40% terpene-ol or terpene ester, and a terpene aldehyde in a topical carrier.

L12 ANSWER 29 OF 41 USPATFULL

ACCESSION NUMBER: 94:97336 USPATFULL
TITLE: Method and therapeutic system for smoking cessation
INVENTOR(S): Baker, Richard W., Palo Alto, CA, United States
Santus, Giancarlo, Milan, Italy
Vintilla-Friedman, Susan, Cupertino, CA, United States
PATENT ASSIGNEE(S): Pharmetrix Corporation, Menlo Park, CA, United States (U.S. corporation)

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PRIMARY EXAMINER:	Cintins, Marianne M.			
ASSISTANT EXAMINER:	Criares, T. J.			

LEGAL REPRESENTATIVE: Townsend and Townsend Khourie and Crew
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 2150
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . Studies using human cadaver skin in vitro are likewise consistent with this finding. Typical permeabilities during the first day of **patch** use are on the order of 0.1 mg/cm.sup.2 .multidot.h, increasing to 0.4 mg/cm.sup.2 .multidot.h and more at later times. Systemic. . .

SUMM . . . 1:7-10 reported on the results of a double-blind study in which they determined that long-term use of a transdermal nicotine **patch** significantly increased the quit rate in cigarette smokers. The results of this study showed that the number of abstainers in. . . group. In another study reported by Mulligan et al. (1990) Clin. Pharmacol. Ther. 47:331-337, the use of a transdermal nicotine **patch** in a 6-week placebo-controlled double-blind study resulted in a significant degree of smoking cessation. Finally, a report by Rose et. . .

SUMM . . . skin-distal side, the depot layer containing a sufficient quantity of nicotine to maintain a useful flux of nicotine from the **patch** for a total time period of 12 hours or more;

SUMM According to other embodiments, the **patch** may take the form of a reservoir system, in which the depot of nicotine is separated from the skin by a nonporous polymeric membrane, through which the nicotine diffuses at a controlled rate. The **patch** may also be in the form of a monolithic matrix, consisting of a single phase solution or mixture of nicotine. . .

DRWD FIG. 6 is a graph of nicotine delivery (mg/cm.sup.2) through 100-micron thick Elvax 880 membranes, from a **patch** containing 200 mu L pure nicotine, with a membrane area of 4.5 cm.sup.2, as a function of time (hr).

DRWD FIG. 7 is a graph of nicotine delivery (mg/cm.sup.2) through 100-micron thick Elvax 88 membranes, from a **patch** containing 200 mu L of a 5% suspension of nicotine in a 20 wt % sodium sulfate solution, with a. . .

DRWD . . . patches with nylon or polyethylene membranes, as a function of time (hr). The nicotine content is 20-25 mg, and the **patch** area is 3.9 cm.sup.2.

DRWD . . . present invention delivering either 22 mg (.quadrature.) or 27 mg (O) of nicotine or the PROSTEP 22 mg ( ) **patch** as a function of time (hr).

DRWD "**Essential oil**" refers to a natural oil with a distinctive scent secreted by the glands of certain aromatic plants having terpenes as. . .

DRWD . . . nicotine system described in the present invention is shown in FIG. 2. Referring now to this figure, the nicotine dispensing **patch**, 1, comprises an impermeable backing layer, 2, and a monolithic matrix layer, 3, which both serves as a depot for. . .

DRWD The impermeable backing layer, 2, defines the non-skin facing, or skin distal, side of the **patch** in use. The functions of the backing layer are to provide an occlusive layer that prevents loss of nicotine to the environment, and to protect the **patch**. The material chosen should therefore be nicotine resistant, and should exhibit minimal nicotine permeability. The backing layer should be opaque,. . .

DRWD . . . in theory patches of this type with a bigger load can be made. Also, the amount of nicotine in the **patch** as made may exceed the delivered load because, as the **patch** becomes exhausted, there will be an insufficient concentration gradient to remove all the nicotine. Consequently, the activity of the **patch** may fall below useful levels.

DRWD . . . elimination of skin irritation. The release mechanism for the

nicotine is diffusion under a concentration gradient. Therefore, even if the **patch** were to be ingested, the nicotine release would be still a gradual process, and the victim would not be exposed. . .

DRWD To ensure that a user cannot be exposed to a toxic dose when the **patch** is used correctly, the in vitro nicotine flux from the **patch** must stay within certain limits. This is a much more critical issue with nicotine than with most drugs, because nicotine. . . 20-fold or more between individuals and between different skin sites on the same individual. It is thus clear that a **patch** with a large nicotine load must be able to control release of that load, such that the in vitro flux from the **patch** does not exceed about 10 times, preferably about 5 times, and more preferably about equals, the average skin permeation rate. Of course, embodiments where the in vitro flux from the **patch** is less than the skin permeation rate, such that the systemic absorption is controlled primarily by the **patch** rather than the skin, are acceptable, so long as the systemic nicotine level can be sustained above the necessary minimum. . .

DRWD . . . by means of a porous or nonporous overlay coated wholly or partly with adhesive, by an adhesive layer between the **patch** and skin, or by an annulus of adhesive around the periphery of the **patch**. Of course, the mixed reservoir/monolith embodiments with adhesive medical tapes do not require additional adhesive.

DRWD If an adhesive layer is to be included as an integral part of the **patch**, the adhesive should be nicotine compatible and permit a useful nicotine flux. In addition, the adhesive should satisfy the general. . .

DRWD Loss of nicotine from the **patch** after manufacture should be kept to a minimum. Normally, the skin-facing side of the **patch** will be covered with a peel strip until the **patch** is used. As stressed throughout, nicotine is volatile, and retention of the nicotine load within the **patch** during storage requires that the outer **patch** layers be extremely nicotine-resistant and nicotine-impermeable. The peel strip therefore should possess the same properties as the backing layer, and. . .

DRWD According to a particularly preferred embodiment, the transdermal nicotine **patch** will comprise a rounded-rectangular, "skin tone" colored **patch** on a clear, rectangular release liner. More specifically, the **patch** will comprise a flexible, occlusive film backing, a multilaminate matrix containing nicotine, a skin adhesive layer, and a protective release. . .

DRWD Another embodiment of the invention is shown in FIG. 3. Referring now to this figure, the nicotine dispensing **patch**, 4, comprises an impermeable backing layer, 2, a nicotine reservoir, 5, and a polymer membrane, 6. The backing layer may. . .

DRWD . . . layer. The reservoir layer does not contribute to any measurable extent to the rate-controlling mechanism. To discourage tampering with the **patch**, or misuse of the contents, it may be desirable to mix the nicotine with other materials as described in U.S.. . .

DRWD If the **patch** is to be loaded with a comparatively small quantity of nicotine, then the nicotine can be conveniently kept in contact. . . can be used. The disk also decreases the user's risk of exposure to a high dose of nicotine should the **patch** become accidentally ruptured.

DRWD The polymer membrane layer, 6, is the rate-controlling means that regulates the flux of nicotine from the **patch** to the skin. The criteria for selection of a suitable material are those discussed in the background section above, namely. . . should also be compatible with the other components, and workable by standard techniques that are used in fabrication of the **patch**, such as casting or heat sealing.

DRWD Dense nonporous membranes have a substantial advantage over microporous materials. Microporous membranes release the contents of the **patch** by pore flow. Thus, in areas of the pores, the skin is

exposed to raw nicotine. Also, in the case. . . so that the system is quickly exhausted, and the skin is flooded with excess nicotine for the life of the **patch**. In contrast, diffusion of nicotine through a nonporous film takes place by dissolution of the nicotine in the film, followed. . .

DRWD Alternatively, it may be possible to purchase the membrane already in film form. This type of transdermal **patch** may be prepared by heat-sealing the backing to the membrane layer around the perimeter of the **patch**. The nicotine formulation may be added either before or after heat sealing. If the formulation is added before heat sealing,. . .

DRWD . . . the reservoir side of the membrane, the nicotine flux through the membrane remains relatively constant over the life of the **patch**.

DRWD . . . discussed above, these kinds of considerations matter more when dispensing nicotine than with many other substances. Suppose that a transdermal **patch**, tested in vitro, delivers a substantial fraction of its total drug load during the first few hours, at a flux. . . The in vitro flux then falls off to levels that are well below the average skin permeation rate until the **patch** is exhausted. When this **patch** is applied to the user, the skin will be saturated with drug and the drug will pass through the skin. . .

DRWD . . . depot" phenomenon may be perfectly acceptable, or even preferable, since it tends to balance out the falling flux from the **patch**.

DRWD . . . patches currently available exhibit this effect and function satisfactorily in this way. However, for nicotine, the situation is different. A **patch** that can avoid this high initial drug burst, with consequent skin irritation or risk of overdose, is desirable. Any initial flux from the **patch** should not exceed a maximum of 2 mg/cm.sup.2 .multidot.h, and more preferably should not exceed 1 mg/cm.sup.2 .multidot.h flux this. . . of the patient, and the drug flux required, it may be easier to stay within this limit with a reservoir-type **patch**. The risk of accidental overdose if the **patch** is damaged or ingested, however, is minimized with monolithic embodiments. There will therefore be circumstances where one or the other type of **patch** is preferably indicated.

DRWD . . . in FIG. 4 exploits the advantages of both reservoir and monolith systems. Referring now to this figure, the nicotine dispensing **patch**, 7, comprises an impermeable backing layer, 2, a monolithic matrix layer, 3, and a polymer membrane layer, 8. The backing. . .

DRWD . . . than the monolith material, so that the adhesive layer serves as a thin membrane limiting flux of nicotine from the **patch**.

DRWD . . . from 3M Company. The additional resistance to permeation created by the tape assists in holding the nicotine load in the **patch** and moderates the initial high drug flux.

DRWD . . . an overdose of nicotine is reduced, because the monolith cannot release its nicotine load in a single burst if the **patch** is damaged or even swallowed.

DRWD . . . and 4,920,989, each of which is expressly incorporated herein by reference. More specifically, according to one embodiment, a transdermal nicotine **patch** similar to the PROSTEP.SM. will be employed. This **patch** comprises, proceeding from the visible outer surface toward the inner surface attached to the skin, (1) a foam tape and. . .

DRWD Alternatively, a nicotine **patch** similar to the Habitrol.SM. **patch** can be used. This **patch** comprises, proceeding from the visible outer surface toward the inner surface attached to the skin, (1) an aluminized-backing film; (2). . .

DRWD Other embodiments will employ a nicotine **patch** similar to the Nicoderm.RTM. nicotine transdermal system, available from ALZA Corporation, Palo Alto, Calif. This **patch** is a multilayered rectangular film containing nicotine as the active agent. Proceeding

from the visible surface toward the surface attached. . .

DRWD E. **Patch** Specifications

DRWD The transdermal nicotine **patch** provides a base line or steady state nicotine level to the patient. The total amount of nicotine released by the **patch** during the period of use will vary depending on the user's body size, history of exposure to nicotine, and response. . .

DRWD General guidelines for **patch** design must ensure that the patient is protected at all times from toxic doses of nicotine, and must also ensure. . . receives a dose of nicotine that will be effective for smoking cessation therapy. The in vitro flux from any individual **patch** used for the intended therapy should remain below about 800 mu g/cm.sup.2 .multidot.h, preferably below 600 mu g/cm.sup.2 .multidot.h, and more preferably below 400 mu g/cm.sup.2 .multidot.h during the life of the **patch**. Staying within these limits ensures that a patient with unusually permeable skin can never receive a toxic dose.

DRWD The size of the **patch** will vary according to the amount of nicotine to be delivered. To deliver 25 mg in a 24-hour period, the **patch** would have a skin-contacting area of about 15-30 cm.sup.2. To maximize patient acceptance and compliance, and to minimize any skin irritation, the **patch** size should not exceed about 45 cm.sup.2 maximum skin covering area. With the systems and release characteristics taught by applicant, it should be possible to keep the **patch** size in the range 1-50 cm.sup.2 preferably 20-35 cm.sup.2.

DRWD . . . reduces immediate metabolism by the liver and intestinal wall flora. Oral drug dosage forms (e.g., lozenge, capsule, gum, tablet, suppository, **ointment**, gel, pessary, membrane, and powder) are typically held in contact with the mucosal membrane and disintegrate and/or dissolve rapidly to. . .

DRWD . . . vanilla, and the like; essential oils such as peppermint, spearmint and the like; or other flavor, such as aniseed, eucalyptus, 1-**menthol**, carvone, anethole and the like, to mask the taste of nicotine. See Hall et al. Food Technol. 14:488 (1960); 15:20. . .

DRWD . . . the production of inclusion complexes of both the nicotine and the flavorant. This embodiment is employed, for example, when an **essential oil**, or other volatile flavorant, such as carvone or **menthol**, is used in the lozenge formulation. As in the case of the nicotine inclusion complexes described herein, incorporation of the. . .

DRWD Whereas the **patch** serves to provide a base line or steady state nicotine level, the transmucosal administration of nicotine provides periodic transient blood. . .

DRWD . . . base line level of nicotine plasma level. The present invention fulfills this objective through the use of a transdermal nicotine **patch** in combination with the transmucosal administration of nicotine, and preferably the administration of nicotine through the oral mucosa, and most preferably, with nicotine lozenges. The transdermal **patch** and the transmucosal administration of nicotine operate in a complimentary manner with the transdermal **patch** providing the steady-state systemic levels of nicotine in the bloodstream to which the smoker has become accustomed, whereas the transmucosal. . .

DRWD . . . for an individualized approach to smoking cessation therapy. Specifically, the total amount of nicotine delivered, the delivery mode, i.e., via **patch** or transmucosal delivery method and regimen, i.e., the order of administration and duration of use of either the **patch** and/or the transmucosal delivery formulation, can be varied to take into account the patient's needs, e.g., the therapeutic indication, the. . .

DRWD For example, according to one embodiment, the transdermal **patch** and transmucosal administration of nicotine are first used concurrently and simultaneously for a period of from about 3 to 12. . . preferably from about 4 to 8 weeks, and most preferably from about 4 to 6 weeks, in which only the **patch** or only the transmucosal nicotine

formulation is used.

DRWD Other embodiments will employ different dosage levels of either the **patch** and/or the transmucosal nicotine formulation to suit the needs of those patients with either a relatively high or low nicotine. . . more on the Fagerstrom test, will typically consist of three phases. During the initial phase, a high dosage nicotine transdermal **patch**, typically, with a high loading of nicotine in the range of about 30-60 mg, and preferably, about 40-45 mg, is. . . from about 4 to 8 weeks. Typically, transmucosal administration of nicotine will be used in conjunction with this high dosage **patch**. Subsequently, a transdermal **patch** with a lower loading of nicotine, typically in the range of about 10-30 mg, and preferably, about 20-25 mg, and. . . of from about 4 to 8 weeks. Finally, for a period of from about 4 to 6 weeks, either the **patch** or the transmucosal administration of nicotine may be used alone.

DRWD . . . moderate smoker, i.e., those scoring 6 or less on the Fagerstrom test. For example, during the initial phase, a transdermal **patch** with a moderate loading of nicotine, typically in the range of about 10-40 mg, and preferably, about 25-30 mg, is. . . administration of nicotine. The second phase of this smoking cessation program will consist of administration of a lower dosage transdermal **patch**, typically containing nicotine in the range of about 10-30 mg, and preferably, about 20-25 mg, optionally, with the transmucosal administration. . . used for a period of from about 4 to 8 weeks. During the final phase or weaning period, either the **patch** or transmucosal administration will be used alone.

DRWD . . . cessation program for the light smoker can be developed using the compositions and methods described herein. For example, a transdermal **patch** containing a relatively low loading of nicotine, typically containing nicotine in the range of about 10-30 mg, and preferably, about. . . used for a period of from about 4 to 8 weeks. During the final phase or weaning period, either the **patch** or the transmucosal formulation will be used alone.

DRWD . . . cigarette smoking. Thus, and with many patients, it is possible to reduce the incidence of smoking with either the transdermal **patch** or the transmucosal formulation alone.

DETD TABLE III

Property	Low Dosage **Patch**	High Dosage **Patch**
Dosage Strength	22 mg/20 cm.sup.2	27 mg/20 cm.sup.2
Size (cm.sup.2)	20	20
Nicotine content (mg)	31.4	37.7
24 Hour Delivery (mg).sup.2	22	27
Flux (mg/cm.sup.2 /24 hour).sup.3	1.1	1.35
Total Nicotine Delivered (%)	73	75
Patch Weight (mg)	837	843
Thickness (micron)	333	344

.sup.2 Based on residual content from in vivo performance.
.sup.3 Estimated from in vivo performance.

DETD TABLE IV

Composition	Nicotine **Patch** A	Nicotine **Patch** B
Dosage	22 mg/20 cm.sup.2	27 mg/20 cm.sup.2
Nicotine content (mg)	31.4	37.7
Acrylic adhesive matrix (mg)	70.2	70.2
Butylated Hydroxytoluene (mg)	0.6	0.6
Polyester film	76.0. . .	

DETD The **patch**-making procedure and release tests described in Example 9 were repeated using the same membrane, but with a load of 200. . .

DETD The **patch**-making procedure and release tests described in Example 11 were repeated with a 22- mu m thick film of Sclairfilm HD-2-PA as the membrane. The flux from the **patch** remained roughly constant at about 80 mu g/cm.sup.2 .multidot.h for the first 60 hours, falling to about 30 mu g/cm.sup.2. . .

DETD The **patch**-making procedure and release tests described in Example 11 were repeated with a 50- mu m thick film of Sclairfilm LWS-2-PA as the membrane. The flux from the **patch** remained roughly constant at about 45-50 mu g/cm.sup.2 .multidot.h.

DETD For Example 24, the monolith contained 37 mg of nicotine, with a **patch** area of 5 cm.sup.2. For Example 25, the monolith contained 74 mg of nicotine, with a **patch** area of 10 cm.sup.2. For Example 26, the monolith contained 60 mg of nicotine, with a **patch** area of 20 cm.sup.2. For Example 27, the monolith contained 54 mg of nicotine, with a **patch** area of 30 cm.sup.2.

DETD . . . systems used were manufactured as described in Examples 24-27, and each contained a total of 37 mg nicotine in a **patch** with an area of 5 cm.sup.2, as in Example 24. For Example 28, a single 5 cm.sup.2 transdermal nicotine **patch** was applied to the right forearm of each subject, and the **patch** remained affixed to the forearm for 16 hours. The lowest curve presents the average nicotine plasma level obtained. For Example. . .

DETD . . . state pharmacokinetics of the 22 and 27 mg patches of the present invention with the PROSTEP 22 mg transdermal nicotine **patch**, available from elan pharma, Ltd., Athlone, County Westmeath, Ireland, and manufactured by Lederle Laboratories Division, American Cyanamid Company, Pearl River,. . .

DETD . . . five consecutive days of the treatment period. The resulting blood plasma levels, along with those of the PROSTEP 22 mg **patch** are shown in FIG. 14. The patches of the present invention were well tolerated.

DETD TABLE VI

Transdermal **Patch**.sup.5	Cmax.sup.6 (ng/mL)	Cavg.sup.7 (ng/mL)	Cmin.sup.8 (ng/mL)	Tmax.sup.9 (hrs)

Habitrol .TM.

17 .+-. 2 13 .+-. 2 9 .+-. 2
6 .+-. 3
(21
mg/day).sup.10
PROSTEP .TM.
16 .+-.. . . 11 .+-. 3
4 .+-. 3
(21 mg/day)
NICOTROL .SM.
13.0 .+-. 3.1
8.7 .+-. 2.1
2.5 .+-. 0.8
8 .+-. 3
(15 mg/day)
PATCH OF 16.1 .+-. 7.1
11.2 .+-. 4.1
4.8 .+-. 1.8
8.4 .+-. 1.8
EXAMPLE 1
(22 mg/day)
PATCH OF 23.4 .+-. 8.1
14.5 .+-. 3.3
5.7 .+-. 1.9
8.4 .+-. 3.3
EXAMPLE 2
(27 mg/day)

.sup.5 Competitor product data taken. . .

CLM What is claimed is:

. . . skin-distal side, the depot layer containing a sufficient quantity of nicotine to maintain a useful flux of nicotine from the **patch** for a total time period of 12 hours or more; (b) an occlusive backing layer in contact with and covering. . .

. . . skin-distal side, the depot layer containing a sufficient quantity of nicotine to maintain a useful flux of nicotine from the **patch** for a total time period of 12 hours or more; ii. an occlusive backing layer in contact with and covering. . .

L12 ANSWER 30 OF 41 USPATFULL

ACCESSION NUMBER: 94:92025 USPATFULL

TITLE: Flexible protective medical gloves and methods for their use

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PATENT INFORMATION:	US 5357636		19941025
APPLICATION INFO.:	US 1992-906829		19920630 (7)

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PRIMARY EXAMINER: Crowder, Clifford D.
ASSISTANT EXAMINER: Vanatta, Amy B.
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EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 4898

SUMM . . . the present invention, the glove can provide a non-liquid antiseptic composition such as a foam, a paste, a gel, an **ointment** or other greasy composition which is capable of

optionally being redistributed within the compartment(s) of the glove by the manual. . .

DETD . . . when for example the non-liquid antiseptic composition is in a distensible or moldable state such as a foam, gel, paste, **ointment**, grease, putty, base and the like combinations of gas, liquid, and/or solids.

DETD . . . of the following forms during the use of the present invention: a foam, a gel, a paste, a magma, an **ointment**, a gas, a solid, a microscopic dust, a powder, as crystalline powder, an aerosol, a non-liquid emulsion, a multiple phase emulsion, a base including the following conventional dermatological bases (an oleaginous **ointment** base, an absorption **ointment** base, an emulsion **ointment** base, and a water-soluble **ointment** base), a grease, a putty, a non-flowable cream, and the like other soft, deformable gas/liquid/solid combination formulations.

DETD . . . 40, Polysorbate 80, polyoxyl 40 stearate, and the like are frequently used examples of nonionic surface active agents. Water soluble **ointment** bases may comprise an aqueous phase of 10 to 80 percent, an emulsifying agent, and an oleaginous phase of 20. . . propylene glycol, or a polyethylene glycol may be added to the aqueous phase to stabilize the water content of the **ointment** base. The humectant can also improve the dispersion of the non-liquid antiseptic composition when it comes into contact with aqueous. . . stabilize the aqueous content of the emulsion. Stearyl alcohol is a solid that also contributes to the hardness of the **ointment** base. The oleaginous phase (also known as the non-aqueous phase) may comprise a petrolatum, fats, waxes, organic alcohols, polyglycol esters,. . . amine soap, polyglycol ester, alkyl aryl sulfate, quaternary ammonium compound and the like. One suitable method of preparation of an **ointment** base is to separately heat (for example with use of a steam bath) the aqueous phase(s) with its additives and. . .

DETD . . . subgallate, bacitracin zinc, sodium lauryl sulfate, carbamide peroxide, sodium borate, oleic acid-iodine, piperonyl butoxide, sodium peroxyborate monohydrate, ammonium ichthosulfonate, eucalyptol, **menthol**, Witch Hazel, camphor, tannic acid, camphorated phenol, phenol glycerin, chloroxylenol, 4-chloro- 3,5-xylenol, chloroquinaldol, nalidixic acid, zinc phenol-sulfonate, zinc sulfocarbolate, hydroxynalidixic. . . other aryl phenols, bis-phenols, phenyl-mecuric chloride, phenylmecuric borate, resorcinol, resorcinol monoactetate NF, orthophenylphenol, chloroxylenol, hexyl-resorcinol, parachlorophenol, paratertiary-amylphenol, thymol, chlorothymol NF, **menthol**, butylparaban, ethylparaben, methylparaben, propylparaben, triclosan, bithionol NF, o-benzyl-p-chlorophenol, hexachlorophene, poloxamer 188, benzalkonium chloride where the alkyl groups attached to the. . .

DETD . . . physical states for the antiseptic composition: powdered solids of any powder grain size, foam, non-liquid cream, gel, jelly, paste, cerate, **ointment**, emulsion base, **plaster**, putty, glycerogelatin, and any other non-liquid states forms that may be suitably used in the present invention (See Remington's Pharmaceutical. . .

DETD . . . that is capable of causing either a pleasant or an unpleasant (malodorous) smell. The chemical smell may be caused an **aromatic oil**, a perfume, an ester, a ketone, an aldehyde, an organic acid, a sulfide, an amine, a flower extract, a plant. . . an animal extract, a mineral extract, or any other suitable chemical. For example the composition may contain a pleasant scented **volatile oil** such as peppermint oil, **menthol**, oil of wintergreen, lemon oil and the like, or an unpleasant odor such as pyridine, putrescene, ammonia, vinegar, formaldehyde and. . .

DETD . . . a smooth mixture is obtained. The two mixtures can then be combined at about 45.degree. C. and stirred until an **ointment** is obtained. One or more milliliters of the composition may be added to fill a glove compartment before the composition. . .

DETD . . . wool fat and petrolatum may be melted together on a steam bath

and then allowed begin to congeal into an **ointment** base. The iodine and potassium iodine are dissolved in the glycerin and alcohol at a temperature below 70.degree. C. and then cooled to the same temperature as the **ointment**. The antiseptic solution is then mixed into the **ointment** base using a slow speed (10-120 revolutions per minute mechanical paddle) and then allowed to cool slowly. One or more. . .

DETD . . . or substances capable of forming a hydrated gel, an organic solvent hydrated gel, another gel, a foam, a paste, an **ointment** , a grease, a putty, a viscous cream, a viscous oil-water emulsion, a viscous water-oil emulsion, a multiphasic emulsion, another non-liquid. . .

DETD . . . cetyl alcohol, 1 gram of white wax, 30 grams of white petrolatum, 5 grams of propylene glycol, 1 gram of **menthol**, I gram of sodium lauryl sulfate, and 55 grams of distilled sterile water. An inner glove layer of 2 mil. . .

CLM What is claimed is:

. . . bismuth-formic-iodide, bismuth subgallate, bacitracin zinc, sodium lauryl sulfate, carbamide peroxide, oleic acid-iodine, pipetonyl butoxide, sodium peroxyborate monohydrate, ammonium ichthosulfonate, eucalyptol, **menthol**, Witch Hazel, camphor, tannic acid, chloroquinaldol, nalidixic acid, zinc phenolsulfonate, zinc sulfocarbolate, hydroxynalidixic acid, pipemidic acid, norfloxacin, norfloxacin hydrochloride, 8-hydroxyquinoline. . .

L12 ANSWER 31 OF 41 USPATFULL

ACCESSION NUMBER: 93:72079 USPATFULL

TITLE: Percutaneously absorbable compositions of morphine or analogous analgesics of morphine

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	WO 1991-JP413		19910329	
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LEGAL REPRESENTATIVE: Spencer, Frank & Schneider
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EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT: 527
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . 1 to 20 weight percent of a percutaneous absorption accelerator comprised of one of (a) a terpene and (b) an **essential oil**; from 10 to 60 weight percent of a percutaneous absorption accelerating assistant comprised of one of (a) a lower alcohol. . .

SUMM . . . were used only as injecting agents and oral agents in the past, for percutaneously absorbable type external agents such as **ointment**, cream, tape dressing, **plaster** dressing,

patch dressing, and pap dressing (wet dressing), the present inventors have found and attained this invention.

SUMM . . . narcotic or nonnarcotic analgesics into a base agent formed of a percutaneous absorption accelerator consisting of a terpene and/or an **essential oil** and a percutaneous absorption accelerating assistant consisting of a lower alcohol having 1-5 carbon atoms.

SUMM As the percutaneous absorption accelerators, hydrocarbon monoterpenes such as limonene, monoterpene alcohols such as l-**menthol**, terpineol and borneol, monoterpene aldehydes such as citral, monoterpene ketones such as ionone, other monoterpenes such as cineole, or essential. . .

DETD TABLE 1

unit: w %

Sample	This Invention	Comparative Example		
Component	1	1	2	3
Morphine hydrochloride	1	1	1	1
1-**Menthol**	5	--	--	5
Ethanol	40	--	40	--
Water	54	99	59	4

DETD The results showed that the formation having l-**menthol** selected as an absorption accelerator and ethanol as an absorption accelerating assistant has excellent percutaneous absorptivity.

DETD TABLE 3

unit: w %

	This lnvention		
Component	1	2	3
Morphine hydrochloride	1	10	0.01
1-**Menthol**	5	5	5
Ethanol	40	40	40
Water	54	45	54.99

DETD TABLE 5

unit: w %

	This Invention		
Component	1	4	5
Morphine hydrochloride	1	1	1
1-**Menthol**	5	--	--
Terpineol	--	5	--
Peppermint oil	--	--	5
Ethanol	40	40	40
Water	54	54	54

DETD To examine the effect of the concentration of l-**menthol** on the skin permeability of morphine hydrochloride from an l-**menthol** -ethanol-water system, formations as shown in Table 7 were prepared and examined for percutaneous absorbability.

DETD TABLE 7

unit: w %

Sample	This Invention		Comparative Ex.		
Component	6	1	7	4	5

Morphine hydrochloride	1	1	1	1	1
1-**Menthol**	2.5	5	10	1	0.1
Ethanol	40	40	40	40	40
Water	56.4	54	49	58	58.9

DETD As shown in FIG. 4 and Table 8, the results showed that skin permeativity is excellent when the concentration of **menthol** is 2.5 w % or more.

DETD . . . of the concentration of ethanol, which is a percutaneous absorption accelerating assistant, on skin permeativity of morphine hydrochloride from an 1-**menthol**-ethanol-water system, the formulations shown in Table 9 were prepared and examined for percutaneous absorbability.

DETD TABLE 9

unit: w %

Sample	This Invention		Comparative Ex.		
Component	8	1	9	6	7
Morphine hydrochloride	1	1	1	1	1
1-**Menthol**	5	5	5	5	5
Ethanol	20	40	60	80	94
Water	74	54	34	14	--

DETD . . . effect of the concentration of isopropyl alcohol (IPA), employed instead of ethanol, on skin permeativity of morphine hydrochloride from an 1-**menthol**-alcohol-water system, the formulations shown in Table 11 were prepared and examined for percutaneous absorbability.

DETD TABLE 11

unit: w %

	This lnvention		
Component	10	11	12
Morphine hydrochloride	1	1	1
1-**Menthol**	5	5	5
Ethanol	20	40	60
Water	74	54	34

DETD . . . supplement to ethanol for the percutaneous absorption accelerating assistant having an influence on skin permeativity of morphine hydrochloride from an 1-**menthol**-alcohol-water system, glycerol was mixed as shown in Table 13, and this was comparatively examined for percutaneous absorbability.

DETD TABLE 13

unit: w %

Sample	This Invention	
Component	1	13
Morphine hydrochloride	1	1
1-**Menthol**	5	5
Ethanol	40	40
Water	54	--
Glycerol	--	54

DETD To examine the skin permeativities of other medicines to an 1-

menthol-ethanol-water system, formulations using fentanyl citrate (FTC), eptazocine hydrobromide (ETH), cocaine hydrochloride (CCH), and morphine hydrochloride were prepared and examined for. . .

DETD . . . 1 14 15 16

Morphine hydrochloride	1	--	--	--
FTC	--	1	--	--
ETH	--	--	1	--
CCH	--	--	--	1
1-**Menthol**	5	5	5	5
Ethanol	40	40	40	40
Water	54	54	54	54

DETD . . . 8(b) and FIG. 8(c) and Table 16, the results showed that every formulation is excellent in skin permeativity in the 1-**menthol**-ethanol-water system, i.e.,

DETD To examine the effect of different concentration of 1-**menthol** on skin permeativity of eptazocine hydrobromide from an 1-**menthol**-ethanol-water system, formulations as shown in Table 17 were prepared and examined for percutaneous absorbability.

DETD TABLE 17

unit: w %			
Sample	This Invention		
Component	17	18	15
E.T.H.	1	1	1
1-**Menthol**	1	2	5
Ethanol	40	40	40
Water	58	57	54

DETD As shown in FIG. 9 and Table 18, the results showed that skin permeativity is excellent when the concentration of **menthol** is 1.0 wt. % or more.

DETD To examine the effect of the concentration of ethanol on skin permeativity of eptazocine hydrobromide from an 1-**menthol**-ethanol-water system, formulations as shown in Table 19 were prepared and examined for percutaneous absorbability.

DETD TABLE 19

unit: w %			
Sample	This Invention		
Component	19	20	15
E.T.H.	1	1	1
1-**Menthol**	5	5	5
Ethanol	10	20	40
Water	84	73	54

DETD To examine the effect of concentration of eptazocine hydrobromide on skin permeativity of eptazocine hydrobromide from an 1-**menthol**-ethanol-water system, formulations as shown in Table 21 were prepared and examined for percutaneous absorbability.

DETD TABLE 21

unit: w %			
Sample	This Invention		
Component	21	22	15
E.T.H.	0.1	5	1
1-**Menthol**	5	5	5
Ethanol	40	40	40
Water	54.9	50	54

CLM What is claimed is:

. . . 1 to 20 weight percent of a percutaneous absorption accelerator comprised of one of (a) a terpene and (b) an **essential oil**; from 10 to 60 weight percent of a percutaneous absorption accelerating assistant comprised of one of (a) a lower alcohol. . .

. . . The composition according to claim 1, wherein the percutaneous absorption accelerator is one of (a) a monoterpene and (b) an **essential oil** containing a monoterpene.

. . . 3. The composition according to claim 2, wherein the percutaneous absorption accelerator is a monoterpene and is one of (a) 1-**menthol** and (b) terpineol.

5. The composition according to claim 2, wherein the percutaneous absorption accelerator is an **essential oil** containing a monoterpene and is one of (a) mentha oil and (b) peppermint oil.

L12 ANSWER 32 OF 41 USPATFULL

ACCESSION NUMBER: 93:63016 USPATFULL

TITLE: Microcapsule, treating liquids containing the same, and textile structure having microcapsules adhering thereto

INVENTOR(S): Yamato, Yoshihisa, Shiki, Japan
Yoshida, Takashi, Yokohama, Japan
Kikuchi, Masaru, Tokyo, Japan
Okamoto, Mihoko, Fujisawa, Japan
Miyoshi, Kyoji, Hofu, Japan
Fukuda, Shigeru, Hofu, Japan
Fuse, Toshikazu, Nagahama, Japan
Yamauchi, Toshio, Osaka, Japan
Ogawa, Yasuhiro, Suita, Japan
Mutagami, Shogo, Hofu, Japan
Shiomura, Shigeo, Hofu, Japan
Mizukami, Yoshikatsu, Osaka, Japan

PATENT ASSIGNEE(S): Kanebo, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5232769		19930803	
	WO 9101801		19910221	
APPLICATION INFO.:	US 1991-667405		19910329	(7)
	WO 1990-JP981		19900731	
			19910329	PCT 371 date
			19910329	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1989-201054	19890801
	JP 1989-201056	19890801
	JP 1989-201058	19890801
	JP 1989-200967	19890802
	JP 1989-202098	19890803
	JP 1989-259579	19891003
	JP 1989-264195	19891011
	JP 1990-149666	19900607

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Cannon, James C.
LEGAL REPRESENTATIVE: Flynn, Thiel, Boutell & Tanis
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
LINE COUNT: 997

SUMM . . . of analgesic, antiphlogistic or antipruritic effects have so far been developed in diversified dosage forms such as internal medicine, injection, **ointment** or **plaster**, and many have been placed on the market. For example, in Japanese Patent Application Laid-open No. 60-188,314, there are described antipruritic plasters comprising an **ointment** compounded with crotaminton as an antipruritic active principle, and in Japanese Patent Application Laid-open No. 60-178,837, there are described oral-administrable. . .

SUMM . . . such as salicylic acid derivatives, such as methyl salicylate or the like, tocopherol acetate, diphenhydramine and its derivatives, zinc oxide, .lambda.-**menthol**, camphor, or the like. These are used alone or in combination.

SUMM . . . or the like, preferably at least acrylic acid copolymer or maleic acid copolymer particularly when the core component material comprises .lambda.-**menthol** or peppermint oil; conducting pH control if required; and at a water temperature of 40.degree. C.), then a formaline aqueous. . .

SUMM (j) A textile structure wherein the substance having a function to improve physiological conditions of human skin includes at least .lambda.-**menthol** to also provide refreshing and cool feeling.

DETD . . . by ten panelists. Then, it was found that no unpleasant feeling was felt as that would be felt when an **ointment** was applied and it displayed an antipruritic effect by being rubbed when one had an itch.

DETD Two grams of methyl salicylate, 1 g of .lambda.-**menthol**, 8 g of lauryl stearate, 9 g of peppermint oil, 6 g of a sodium sulfonated polystyrene and 4 g. . .

DETD . . . manner as Example 9, except that 2 g of methyl salicylate, 1 g of tocopherol acetate and 1 g of .lambda.-**menthol** were used (Example 10).

DETD . . . by ten panelists. Then, it was found that no unpleasant feeling was felt as that would be felt when an **ointment** was applied and it displayed an analgesic effect by being rubbed when one had an ache.

DETD . . . were manufactured in the same manner as Example 9, except that 1 g of methyl salicylate and 2 g of .lambda.-**menthol** were used as analgesics and lauryl stearate was replaced by an acrylic acid copolymer.

DETD . . . parts each of aqueous dispersions of 40% microcapsules composed of a micro-envelope formed by polycondensation of methylol melamine, containing an **aromatic oil** of jasmine, sandalwood, rose or eucalyptus in an amount of 30%, 50% and 80%, respectively, (see Table 1, particle diameter:. . .

DETD TABLE 6

Test No.	Kind of **Aromatic Oil**	Content of **Aromatic Oil** (wt. %)
1	Jasmine	30
2	Jasmine	50
3	Jasmine	80
4	Sandalwood	30
5	Sandalwood	50
6	Sandalwood	80
7	Rose	30
8	Rose	50
9	Rose	80
10. . .		

L12 ANSWER 33 OF 41 USPATFULL
ACCESSION NUMBER: 93:56706 USPATFULL
TITLE: Lice-repellant compositions

INVENTOR(S):	Eini, Meir, Ness Ziona, Israel Tamarkin, Dov, Jerusalem, Israel
PATENT ASSIGNEE(S):	Clilco, Ltd., Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5227163		19930713
APPLICATION INFO.:	US 1992-902415		19920619 (7)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-642806, filed on 18 Jan 1991, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rollins, John W.
LEGAL REPRESENTATIVE: Kilpatrick & Cody
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 675
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . cis-verbenol; C.sub.10 H.sub.18 O compounds, myrtanol, iso-pinocampheol, dihydrocarveol, isopulegol, terpineol, terpinen-4-ol, nerol, geraniol, and linalool, and C.sub.10 H.sub.20 O compounds, **menthol**, .beta.-citronellol, and dihydro-myrcenol

DETD . . . in diameter) was secured in a petri-dish. A 100 .mu.l portion of the test solution was placed on a corduroy **patch** (1.5 cm.sup.2). The material was allowed to dry for 30 min. at room temperature (20.+-.3.degree. C.) and the **patch** was placed at the periphery of the petri-dish. A **patch** treated with a control solution (96% Ethanol) was placed on the opposite side of the dish. Twenty female lice which. . .

DETD where: T=number of lice on the treated **patch**

DETD C=number of lice on the untreated **patch**

	. . . .beta.-CITRONELLOL	0.070	0.049
		0.020	0.014
	.alpha.-TERPINEOL	0.080	0.056
		0.040	0.028
	GERANIOL	0.020	0.014
		0.005	0.004
	LINALOOL	0.080	0.056
		0.020	0.014
	MENTHOL	0.150	0.105
		0.030	0.021
	DIHYDRO	0.800	0.560
		0.600	0.420
	MYRCENOL		
	ISOPINO-	0.300	0.210
		0.200	0.140
	CAMPHEOL		
	TERPINEN-4-OL	0.090	0.063
		0.020	
. . .	0.400		
			0.280

RC = Repellency concentration = (1 - T/C) .times. 100
T = Number of lice on the treated **patch**

C = Number of lice on the untreated **patch**
RD = Repellency dosage in mg/cm.sup.2
RC.sub.80 = Concentration giving 80% repellency
RC.sub.50 = Concentration giving 50% repellency
RD.sub.80 =. . .

DETD LICE-FREE GEL contains 46.6% purified water, 45% alcohol, 2% diethyl toluamide, 2% methyl lactate, 2% **menthol**, 0.9% Carbomer.RTM. 940, and 1.5% Triethanolamin.

DETD . . . lice infestation, containing 50% purified water, 42% alcohol, 2% % Diethyl Toluamide, 2% Diethyl Phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was examined in a controlled field study. This study, after receiving the authorization of the Helsinki Committee, was conducted by. . .

DETD The test product, containing 50% purified water, 42% alcohol, 2% Diethyl Toluamide, 2% diethyl phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was provided to the nurses. The product is presented in a spray bottle, equipped with a nozzle of 0.10 ml.. . .

CLM What is claimed is:

. . . is selected from the group consisting of perillyl alcohol, carveol, myrtenol, cis-verbenol, myrtanol, isopinocampheol, dihyrocarveol, isopulegol, terpineol, terpinen-4-ol, nerol, geraniol, **menthol**, .beta.-citronellol, and dihydromyrcelnol.

L12 ANSWER 34 OF 41 USPATFULL

ACCESSION NUMBER:	90:21558 USPATFULL		
TITLE:	Transdermal delivery of loratadine		
INVENTOR(S):	Kogan, Patricia W., Union, NJ, United States Sequeira, Joel A., New York, NY, United States		
PATENT ASSIGNEE(S):	Schering Corporation, Kenilworth, NJ, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4910205		19900320
APPLICATION INFO.:	US 1988-188922		19880502 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Robinson, Ellis P.		
ASSISTANT EXAMINER:	Horne, Leon R.		
LEGAL REPRESENTATIVE:	Magatti, Anita W., Maitner, John J., Miller, Stephen I.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
LINE COUNT:	209		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM In particular, the pharmaceutical composition comprises loratadine or its decarbalkoxylation product, a pharmaceutically acceptable volatile solvent, preferably ethanol, an **essential oil**, preferably rosemary oil, and a fatty acid ester, preferably isopropyl myristate.

SUMM . . . the administration of loratadine and more specifically provides a method and a composition wherein a transdermal device, especially a reservoir **patch**, is conveniently applied to the skin to provide transdermal loratadine administration over a prolonged period of time. Thus, the method, composition and **patch** of the invention can be used to provide systemic treatment remote to the site of application, i.e., the antihistamine activity. . . . via the blood rather than by local antihistamine activity at the site of application of the loratadine transdermal composition and/or **patch**.

SUMM . . . and a pharmaceutically acceptable transdermal carrier. The preferred mode for accomplishing the transdermal application of loratadine is via a transdermal **patch**.

SUMM We have surprisingly found that a combination of a volatile solvent, an

essential oil and a fatty acid ester produces a transdermal flux of loratadine greater than the transdermal flux in the volatile solvent alone, in the volatile solvent and the **essential oil**, or in the volatile solvent and the fatty acid ester.

SUMM . . . are most commonly used in perfumes or as flavoring agents, although several oils, e.g. wintergreen (methyl salicylate) and peppermint (principally **menthol**) oils are used for pharmaceutical purposes, e.g. as counterirritants or local anesthetics. In EP No. 70,525, peppermint and wintergreen oils. . .

SUMM . . . about 40-70%, preferably about 50-60% volatile solvent; about 5-50%, preferably about 20-35% fatty acid ester; about 2-60%, preferably about 2-30% **essential oil**; and an antihistaminic effective amount, i.e., about 5-30%, preferably 10-20% loratadine. The resulting pharmaceutical composition can be administered in any transdermally appropriate form, but a preferred method is to prepare a "reservoir type" **patch** which is applied to the skin and worn for a specific period of time to permit the penetration of a desired amount of loratadine through the skin. Most preferably, the **patch** of the invention will be worn for one to four days and provide a total daily dosage of about 0.5 to about 5 mg, preferably about 1 mg to about 3 mg of loratadine. The **patch** may then be replaced if necessary with a fresh **patch**, thereby providing a constant blood level of loratadine to the patient in need thereof. Preferably the reservoir of the **patch** contains a gel made from the above-described components in combination with a pharmaceutically acceptable thickener such as hydroxypropylcellulose or hydroxypropyl. . .

DETD . . . Amount (mg/g)

Loratadine	200
Isopropyl Myristate	250
Rosemary oil	20
Hydroxypropyl cellulose	20
Ethanol	510
	1000*

*gel fill weight: 840 mg for a 15 cm.sup.2 **patch** to contain 168 mg loratadine.

DETD Any suitable reservoir-type transdermal **patch** can be used to administer the preferred gel of the instant invention. For example, a closed reservoir **patch** can be manufactured comprising an impervious backing membrane such as a polyester/vinyl acetate membrane heat-sealed to a releasing membrane (i.e.. . . with a pharmaceutically acceptable adhesive, such as an acrylate, silicone or rubber adhesive, e.g. a polyisobutylene adhesive, to adhere the **patch** to the skin of the host undergoing treatment. A release liner such as a polyester release liner can also be provided to cover the adhesive layer prior to application of the **patch** to the skin as is conventional in the art. This **patch** assembly can be packaged in an aluminum foil or other suitable pouch, again as is conventional in the art.

DETD Alternatively, an open reservoir **patch** may be employed, which **patch** can comprise a porous membrane in place of the releasing membrane described above, or not include a membrane at all. An example of a porous membrane **patch** comprises a foil compartment with an adhesive border, a porous insert or membrane to hold the gel, and a foil release liner. A typical membrane-less **patch** comprises a foil compartment with an adhesive border, a peelable heat-sealed foil-based laminate upper backing member, and a secondary upper. . .

DETD . . . arts, and can be achieved, for example, by varying the concentration of active or by changing the size of the **patch**.

The utilization of this new dosage form and its prescribed regimen will provide this efficacy of loratadine, having the advantages. . .

CLM What is claimed is:

. . . about 40-70%, of a pharmaceutically acceptable volatile solvent, about 5-50%, of a fatty acid ester and about 2-60%, of an **essential oil**.

5. A composition of claim 2 wherein the **essential oil** is selected from rosemary oil, eucalyptus oil, spearmint oil, cedarwood oil, wintergreen oil and peppermint oil.

. . . claim 1 wherein 50 to 60% of a volatile solvent, 20-35% of a fatty acid ester and 2-30% of an **essential oil** and 10-20% loratadine or its decarboxylation product are employed.

L12 ANSWER 35 OF 41 USPATFULL

ACCESSION NUMBER:	88:27787 USPATFULL
TITLE:	Method of relieving pain and inflammatory conditions employing substituted salicylamides
INVENTOR(S):	Ritchey, Thomas W., Norwood, NJ, United States
PATENT ASSIGNEE(S):	Lever Brothers Company, New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4742083		19880503
APPLICATION INFO.:	US 1985-774613		19850910 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1983-525916, filed on 24 Aug 1983, now patented, Pat. No. US 4560519		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Friedman, Stanley J.		
LEGAL REPRESENTATIVE:	McGowan, Jr., Gerard J., Farrell, James J.		
NUMBER OF CLAIMS:	65		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1382		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . affected areas is obtained. Likewise, when the carrier vehicle is a soft pasty substance like lanolin or petroleum jelly, an **ointment** suitable for dispensing from a collapsible tube is obtained. Advantageously, said compounds may be incorporated into solution, aerosol, cream, lotion, **ointment**, liniment, gel, shampoo, soap, suppository, or liquid bases to form solutions, aerosols, creams, lotions, ointments, liniments, gels, shampoos, soaps, suppositories. . .

DETD An **ointment** is prepared incorporating the compound AN-10 as an active ingredient. The **ointment** comprises the respective ingredients in the percentages shown below:

DETD The resulting **ointment** is applied on the skin to relieve a painful or inflammatory condition thereof in sufficient amount to cause the spreading. . .

DETD The relief of pain and inflammation results. Advantageously, the **ointment** is applied to the affected area of the skin every four to twelve hours when pain persists.

DETD An **ointment** of comparable efficacy to that described in Example 15 is made with the following ingredients:

DETD The resulting **ointment** is applied to the skin to relieve inflammation caused by a painful skin condition in the manner described in Example. . .

DETD . . . this Example is applied upon the skin to relieve pain or inflammation in substantially the same manner as with the **ointment** described in Example 15.

DETD The solution is applied to the affected skin in substantially the same

manner as that described for the **ointment** of Example 15.

DETD . . . cream is applied to the skin to relieve pain and inflammation in the same manner as that described for the **ointment** of Example 15.

DETD

Ingredients	Percent by Weight
AMCF3-8	1
Cocoa butter	93
Zinc oxide	3
Menthol	2
Balsam Peru	1

DETD

Ingredient	wt. %
APCF3-8	1
Essential oil of cajeput	0.5
Essential oil of eucalyptus	0.5
Essential oil of peppermint	0.5
Cottonseed oil	to 100

DETD To this purpose, a **plaster** or a bandage is sprinkled with a 10% wt./wt. acryloyl AN-10 in acetone solution to the extent of 0.01 gram. . . . are stored in hermetically sealed polyethylene or metal foil envelopes to prevent loss of the salicylamide compound from the medicated **plaster** or medicated bandage.

DETD The term **plaster** as used herein means a wound dressing which has an adhesive coated on one side thereof. Advantageously, the adhesive material. . .

DETD The acryloyl AN-10 impregnated **plaster** or bandage is used with enhanced, therapeutic value when utilized in the dressing of wounds by minimizing or eliminating the. . .

L12 ANSWER 36 OF 41 USPATFULL

ACCESSION NUMBER:	88:9904 USPATFULL
TITLE:	Method of relieving pain and inflammatory conditions employing substituted salicylamides
INVENTOR(S):	Ritchey, Thomas W., Norwood, NJ, United States
PATENT ASSIGNEE(S):	Lever Brothers Company, New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4725590		19880216
APPLICATION INFO.:	US 1985-774617		19850910 (6)
RELATED APPLN. INFO.:	Division of Ser. No. US 1983-525916, filed on 24 Aug 1983, now patented, Pat. No. US 4560549		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Friedman, Stanley J.		
LEGAL REPRESENTATIVE:	McGowan, Jr., Gerard J., Farrell, James J.		
NUMBER OF CLAIMS:	27		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1234		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . affected areas is obtained. Likewise, when the carrier vehicle is a soft pasty substance like lanolin or petroleum jelly, an **ointment** suitable for dispensing from a collapsible tube is obtained. Advantageously, said compounds may be incorporated into solution, aerosol, cream, lotion, **ointment**, liniment, gel,

shampoo, soap, suppository, or liquid bases to form solutions, aerosols, creams, lotions, ointments, liniments, gels, shampoos, soaps, suppositories. . .

DETD An **ointment** is prepared incorporating the compound AN-10 as an active ingredient. The **ointment** comprises the respective ingredients in the percentages shown below:

DETD The resulting **ointment** is applied on the skin to relieve a painful or inflammatory condition thereof in sufficient amount to cause the spreading. . .

DETD The relief of pain and inflammation results. Advantageously, the **ointment** is applied to the affected area of the skin every four to twelve hours when pain persists.

DETD An **ointment** of comparable efficacy to that described in Example 15 is made with the following ingredients:

DETD The resulting **ointment** is applied to the skin to relieve inflammation caused by a painful skin condition in the manner described in Example. . .

DETD . . . this Example is applied upon the skin to relieve pain or inflammation in substantially the same manner as with the **ointment** described in Example 15.

DETD The solution is applied to the affected skin in substantially the same manner as that described for the **ointment** of Example 15.

DETD . . . cream is applied to the skin to relieve pain and inflammation in the same manner as that described for the **ointment** of Example 15.

DETD

Ingredients	Percent by Weight
AMCF3-8	1
Cocoa butter	93
Zinc oxide	3
Menthol	2
Balsam Peru	1

DETD

Ingredient	wt. %
APCF3-8	1
Essential oil of cajeput	0.5
Essential oil of eucalyptus	0.5
Essential oil of peppermint	0.5
Cottonseed oil	to 100

DETD To this purpose, a **plaster** or a bandage is sprinkled with a 10% wt./wt. acryloyl AN-10 in acetone solution to the extent of 0.01 gram. . . are stored in hermetically sealed polyethylene or metal foil envelopes to prevent loss of the salicylamide compound from the medicated **plaster** or medicated bandage.

DETD The term **plaster** as used herein means a wound dressing which has an adhesive coated on one side thereof. Advantageously, the adhesive material. . .

DETD The acryloyl AN-10 impregnated **plaster** or bandage is used with enhanced, therapeutic value when utilized in the dressing of wounds by minimizing or eliminating the. . .

L12 ANSWER 37 OF 41 USPATFULL

ACCESSION NUMBER: 85:75119 USPATFULL

TITLE: Method of relieving pain and inflammatory conditions employing substituted salicylamides

INVENTOR(S): Ritchey, Thomas W., Norwood, NJ, United States

PATENT ASSIGNEE(S): Lever Brothers Company, New York, NY, United States

(U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4560549		19851224	
APPLICATION INFO.:	US 1983-525916		19830824	(6)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Friedman, Stanley J.			
LEGAL REPRESENTATIVE:	Darcy, Lynne, Farrell, James J			
NUMBER OF CLAIMS:	45			
EXEMPLARY CLAIM:	1			
LINE COUNT:	1465			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . affected areas is obtained. Likewise, when the carrier vehicle is a soft pasty substance like lanolin or petroleum jelly, an **ointment** suitable for dispensing from a collapsible tube is obtained. Advantageously, said compounds may be incorporated into solution, aerosol, cream, lotion, **ointment**, liniment, gel, shampoo, soap, suppository, or liquid bases to form solutions, aerosols, creams, lotions, ointments, liniments, gels, shampoos, soaps, suppositories. . .

DETD An **ointment** is prepared incorporating the compound AN-10 as an active ingredient. The **ointment** comprises the respective ingredients in the percentages shown below:

DETD The resulting **ointment** is applied on the skin to relieve a painful or inflammatory condition thereof in sufficient amount to cause the spreading. . .

DETD The relief of pain and inflammation results. Advantageously, the **ointment** is applied to the affected area of the skin every four to twelve hours when pain persists.

DETD An **ointment** of comparable efficacy to that described in Example 15 is made with the following ingredients:

DETD The resulting **ointment** is applied to the skin to relieve inflammation caused by a painful skin condition in the manner described in Example. . .

DETD . . . this Example is applied upon the skin to relieve pain or inflammation in substantially the same manner as with the **ointment** described in Example 15.

DETD The solution is applied to the affected skin in substantially the same manner as that described for the **ointment** of Example 15.

DETD . . . cream is applied to the skin to relieve pain and inflammation in the same manner as that described for the **ointment** of Example 15.

DETD

Ingredients	Percent by Weight
AMCF3-8	1
Cocoa butter	93
Zinc oxide	3
Menthol	2
Balsam Peru	1

DETD

Ingredient	wt. %
APCF3-8	1
Essential oil of cajeput	0.5
Essential oil of eucalyptus	0.5
Essential oil of peppermint	0.5
Cottonseed oil	-- to 100

DETD To this purpose, a **plaster** or a bandage is sprinkled with a 10% wt./wt. acryloyl AN-10 in acetone solution to the extent of 0.01 gram. . . are stored in hermetically sealed polyethylene or metal foil envelopes to prevent loss of the salicylamide compound from the medicated **plaster** or medicated bandage.

DETD The term **plaster** as used herein means a wound dressing which has an adhesive coated on one side thereof. Advantageously, the adhesive material. . .

DETD The acryloyl AN-10 impregnated **plaster** or bandage is used with enhanced, therapeutic value when utilized in the dressing of wounds by minimizing or eliminating the. . .

CLM What is claimed is:

10. A medicated **plaster** comprising a **plaster** and, carried on said **plaster**, an admixture of a pharmaceutically acceptable carrier vehicle an anti-inflammatorily effective amount of an anti-inflammatory compound of the formula: ##STR35##. . .

11. A medicated **plaster** comprising a **plaster** and, carried on said **plaster**, an admixture of a pharmaceutically acceptable carrier vehicle and an analgesically effective amount of an analgesic compound of the formula:. . .

12. A medicated **plaster** according to claim 10 or claim 11 wherein --R.sub.3 is of the form --CH.sub.2 --R.sub.6 wherein --R.sub.6 is a C.sub.1. . .

13. A medicated **plaster** according to claim 10 or claim 11 wherein X.sub.1, X.sub.2 and X.sub.3 are identical halogen atoms.

14. A medicated **plaster** according to claim 13 wherein X.sub.1, X.sub.2 and X.sub.3 are fluorine atoms.

15. A medicated **plaster** according to claim 10 or claim 11 wherein --R.sub.3 is R.sub.4 -substituted-phenyl and R.sub.4 is selected from the group consisting. . .

16. A medicated **plaster** according to claim 15 wherein R.sub.4 is meta-CF.sub.3.

17. A medicated **plaster** according to claim 15 wherein R.sub.4 is in the para position.

18. A medicated **plaster** according to claim 10 or claim 11 wherein the compound is selected from the group consisting of a compound of. . .

L12 ANSWER 38 OF 41 USPATFULL

ACCESSION NUMBER:	79:27033 USPATFULL
TITLE:	Compositions having a physiological cooling effect
INVENTOR(S):	Watson, Hugh R., Wargrave, England Rowsell, David G., Staines, England Browning, John H. D., Wokingham, England
PATENT ASSIGNEE(S):	Wilkinson Sword Limited, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4157384		19790605
APPLICATION INFO.:	US 1977-837900		19770929 (5)
RELATED APPLN. INFO.:	Division of Ser. No. US 1974-486675, filed on 8 Jul 1974, now abandoned which is a continuation-in-part of Ser. No. US 1972-221753, filed on 28 Jan 1972, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Schenkman, Leonard		
LEGAL REPRESENTATIVE:	Leydig, Voit, Osann, Mayer & Holt, Ltd.		

NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
LINE COUNT: 812
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM **Menthol** is well known for its physiological cooling effect on the skin and mucous membranes of the mouth and has been extensively used as a flavouring agent (**menthol** being a major constituent of oil of peppermint) in foodstuffs, beverages, dentifrices, mouthwashes, etc. and as a component in a wide range of toiletries, liniments and lotions for topical application. **Menthol** is also a well known tobacco additive for producting a "cool" sensation in the mouth when smoking.

SUMM It is well established that the "cooling" effect of **menthol** is a physiological effect due to the direct action of **menthol** on the nerve endings of the human body responsible for the detection of hot or cold and is not due to latent heat of evaporation. It is believed that the **menthol** acts as a direct stimulus on the cold receptors at the nerve endings which in turn stimulate the central nervous. . .

SUMM Although **menthol** is well established as a physiological coolant its use, in some compositions, is circumscribed by its strong minty odour and. . .

SUMM A few other compounds have been reported in the technical literature as having an odour or flavour similar to **menthol** and from time to time have been proposed as flavourants or odourants in a variety of topical and ingestible compositions.. . . For example, Japanese Patent Publication No. 39-19627 reports that 3-hydroxymethyl p-menthane (menthyl carbinol) has a flavour closely resembling that of 1-**menthol** and suggests its use as a flavourant in confectionery, chewing gum and tobacco. In Swiss Pat. No. 484,032 certain saccharide esters of **menthol** are proposed as additive to tobacco. In French Pat. No. 1,572,332 N,N-Dimethyl 2-ethylbutanamide is reported as having a minty odour. . . odour has also been reported for 2,4,6-trimethylheptan-4-ol and 2,4,6-trimethyl hept-2-en-4-ol in Parfums-Cosmetiques-Savons, May 1956, pp. 17-20. The cooling effect of **menthol** and other related terpene alcohols and their derivatives has also been studied and reported in Koryo, 95, (1970), pp. 39-43.. . .

SUMM Despite this knowledge of other compounds having an odour and flavour similar to that of **menthol**, **menthol** is still extensively used in topical, ingestible and other compositions notwithstanding the disadvantages mentioned above, namely its very strong odour. . .

SUMM . . . to provide other compounds having a pronounced physiological cooling effect, in many cases far more persistent than that obtained with **menthol**, without the attendant disadvantages of a strong odour.

DETD . . . methods. Thus, the p-menthane-3-carboxylic acid and its salts may readily be prepared by carbonation of a Grignard reagent derived from **menthol**. The carboxylic acid may then readily be converted into its acid chloride, for example, by reaction with thionyl chloride, and. . .

DETD . . . upon whether the substitution is axially or equatorially into the cis or trans isomer, the four isomers being related as **menthol** is to neomenthol, isomenthol, and neoisomenthol. In general it is found that in the compounds used in this invention the. . .

DETD . . . and for giving an indication of the different relative activities of the compounds, as between themselves and as compared with **menthol**, when applied in a particular manner to a particular part of the body. The results are not necessarily indicative of. . .

DETD . . . for that particular compound. The tests are carried out on a selected panel of 6 people of median sensitivity to 1-**menthol**.

DETD To select a test panel of average sensitivity the following procedure is

used. Known quantities of 1-**menthol** in solution in petroleum ether (bp. 40-60) are placed on 5 mm. squares of filter paper, whereafter the solvent is. . . a time on the tongue and to report on the presence or absence of a cooling effect. The quantity of 1-**menthol** on each impregnated square is gradually reduced from a value substantially above 0.25 .mu.g, the precise range being immaterial. Conveniently, one starts with squares containing 2.0 .mu.g. 1-**menthol**, the amount on each successive square being half that of the preceding square, i.e. the second test square will contain. . . quantity is tested on the tongue at least 10 times. In this way, the thresholds to cold receptor stimulus by 1-**menthol** are determined for each individual of the panel, the threshold for each individual being that amount of 1-**menthol** for which, in a series of not less than 10 test applications, a cooling effect is reported 50% of the time. Six panel members are now selected whose threshold to 1-**menthol** is in the range 0.1 .mu.g to 10 .mu.g and whose average threshold is approximately 0.25 .mu.g., this select panel. . .

DETD . . . according to this invention, the above procedure is repeated using only the 6 selected panel members of average sensitivity to 1-**menthol**. The individual thresholds for each test compound on each of the 6 selected panel members are determined and averaged. Those. . .

DETD . . . a natural or synthetic surfactant e.e. a fatty acid salt or a laurylsulphate salt, the composition usually also containing sn **essential oil** or perfume. The range of soap compositions will include soaps of all kinds e.g. toilet soaps, shaving soaps, shaving foams. . .

DETD Antiseptic **Ointment**

DETD An **ointment** was prepared according to the following formulation:

DETD The final **ointment** when applied to the skin gave rise to a marked cooling effect.

DETD Antipruritic **Ointment**

DETD To the melt was added 0.3% p-menthane-3-carboxamide and the mixture then allowed to solidify. A soft **ointment** resulted having a soothing effect on the skin accompanied by a noticeable cooling effect.

DETD . . . have shown that the compounds are substantially non toxic. LD values for mice are in excess of 2 g/kg. Enclosed **patch** tests on the skin have shown an extremely low level of allergic response even in persons known to be extremely. . .

L12 ANSWER 39 OF 41 USPATFULL

ACCESSION NUMBER: 79:4484 USPATFULL

TITLE: P-Menthane carboxamides having a physiological cooling effect

INVENTOR(S): Watson, Hugh R., Wargrave, England
Rowsell, David G., Staines, England
Spring, David J., Datchet, England

PATENT ASSIGNEE(S): Wilkinson Sword Limited, London, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4136163		19790123
APPLICATION INFO.:	US 1974-486564		19740708 (5)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1972-221755, filed on 28 Jan 1972, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1971-3928	19710204
	GB 1971-3934	19710204

DOCUMENT TYPE: Utility

FILE SEGMENT: Granted
PRIMARY EXAMINER: Schenkman, Leonard
LEGAL REPRESENTATIVE: Leydig, Voit, Osann, Mayer & Holt, Ltd.
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
LINE COUNT: 841
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM **Menthol** is well known for its physiological cooling effect on the skin and mucous membranes of the mouth and has been extensively used as a flavouring agent (**menthol** being a major constituent of oil of peppermint) in foodstuffs, beverages, dentifrices, mouthwashes, etc. and as a component in a wide range of toiletries, liniments and lotions for topical application. **Menthol** is also a well known tobacco additive for producing a "cool" sensation in the mouth when smoking.

SUMM It is well established that the "cooling" effect of **menthol** is a physiological effect due to the direct action of **menthol** on the nerve endings of the human body responsive for the detection of hot or cold and is not due to latent heat of evaporation. It is believed that the **menthol** acts as a direct stimulus on the cold receptors at the nerve endings which in turn stimulate the central nervous. . .

SUMM Although **menthol** is well established as a physiological coolant its use, in some compositions, is circumscribed by its strong minty odour and. . .

SUMM A few other compounds have been reported in the technical literature as having an odour or flavour similar to **menthol** and from time to time have been proposed as flavourants or odourants in a variety of topical and ingestible compositions.. . . For example, Japanese Patent Publication No. 39-19627 reports that 3-hydroxymethyl p-menthane (menthyl carbinol) has a flavour closely resembling that of 1-**menthol** and suggests its use as a flavourant; in confectionery, chewing gum and tobacco. In Swiss Patent No. 484,032 certain saccharide esters of **menthol** are proposed as additive to tobacco. In French Pat. Spec. No. 1,572,332 N,N-Dimethyl 2-ethylbutanamide is reported as having a minty. . . odour has also been reported for 2,4,6-trimethylheptan-4-ol and 2,4,6-trimethyl hept-2-en-4-ol in Parfums-Cosmetiques-Savons, May 1956, pp. 17-20. The cooling effect of **menthol** and other related terpene alcohols and their derivatives has also been studied and reported in Koryo, 95, (1970), pp. 39-43.. . .

SUMM Despite this knowledge of other compounds having an odour and flavour similar to that of **menthol**, **menthol** is still extensively used in topical, ingestible and other compositions notwithstanding the disadvantages mentioned above, namely its very strong odour. . .

SUMM . . . to provide other compounds having a pronounced physiological cooling effect, in many cases far more persistent than that obtained with **menthol**, without the attendant disadvantages of a strong odour.

DETD . . . upon whether the substitution is axially or equatorially into the cis or trans isomer, the four isomers being related as **menthol** is to neomenthol, isomenthol, and neoisomenthol. In general it is found that in the compounds used in this invention the. . .

DETD . . . and for giving an indication of the different relative activities of the compounds, as between themselves and as compared with **menthol**, when applied in a particular manner to a particular part of the body. The results are not necessarily indicative of. . .

DETD . . . for that particular compound. The tests are carried out on a selected panel of 6 people of median sensitivity to 1-**menthol**.

DETD To select a test panel of average sensitivity the following procedure is used. Known quantities of 1-**menthol** in solution in petroleum ether (bp.40-60) are placed on 5 mm. squares of filter paper, whereafter

the solvent is allowed. . . a time on the tongue and to report on the presence or absence of a cooling effect. The quantity of 1-**menthol** on each impregnated square is gradually reduced from a value substantially above 0.25 .mu.g. per square to substantially below 0.25 .mu.g, the precise range being immaterial. Conveniently, one starts with squares containing 2.0 .mu.g. 1-**menthol**, the amount on each successive square being half that of the preceding square, i.e. the second test square will contain. . . quantity is tested on the tongue at least 10 times. In this way, the thresholds to cold receptor stimulus by 1-**menthol** are determined for each individual of the panel, the threshold for each individual being that amount of 1-**menthol** for which, in a series of not less than 10 test applications, a cooling effect is reported 50% of the time. Six panel members are now selected whose threshold to 1-**menthol** is in the range 0.1 .mu.g to 10 .mu.g and whose average threshold is approximately 0.25 .mu.g., this select panel. . .

DETD . . . according to this invention, the above procedure is repeated using only the 6 selected panel members of average sensitivity to 1-**menthol**. The individual thresholds for each test compound on each of the 6 selected panel members are determined and averaged. Those. . .

DETD . . . a natural or synthetic surfactant e.e. a fatty acid salt or a lauryl sulphate salt, the composition usually, containing an **essential oil** or perfume. The range of soap compositions will include soaps of all kinds e.g. toilet soaps, shaving soaps, shaving foams. . .

DETD Antiseptic **Ointment**

DETD An **ointment** was prepared according to the following formulation:

DETD The final **ointment** when applied to the skin gave rise to a marked cooling effect.

DETD Antipruritic **Ointment**

DETD To the melt was added 0.1% of N-(p-menth-3-oyl)glycine n-propyl ester and the mixture was then allowed to solidify. A soft **ointment** resulted having a soothing effect on the skin accompanied by a noticeable cooling effect.

DETD . . . this invention have shown that the compounds are substantially non toxic, LD.sub.50 levels in mice being higher than 2g/kg. Enclosed **patch** tests on the skin, on both rabbits and humans, have shown an extremely low level of allergic response even in. . .

L12 ANSWER 40 OF 41 USPATFULL

ACCESSION NUMBER: 75:9253 USPATFULL

TITLE: Stabilized compositions containing a phosphoric acid ester pesticide and an alcoholic compound.

INVENTOR(S): Hennart, Claude, Aubervilliers, France
Mandon, Jean-Pierre, Paris, France
Martin, Georges, Saint Benoit, France
Rabussier, Bernard, Avanton, France

PATENT ASSIGNEE(S): Ciba-Geigy AG, Basel, Switzerland (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 3867526		19750218
APPLICATION INFO.:	US 1972-290509		19720920 (5)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1969-833665, filed on 16 Jun 1969, now patented, Pat. No. US 3705941 And Ser. No. US 1970-17918, filed on 9 Mar 1970, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1969-6859	19690312

	FR 1969-6860	19690312
	FR 1969-6861	19690312
	FR 1969-6862	19690312
	FR 1969-3313	19690212
	FR 1968-156025	19680621
	LU 1969-60052	19691218

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rosen, Sam
LEGAL REPRESENTATIVE: Wenderoth, Lind & Ponack
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
LINE COUNT: 1313
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM c. as odorant products, such natural or synthetic odorants as geraniol, linalol, terpineol, **menthol** and citronellol, or compositions containing one or more of these odorant materials

SUMM . . . the instant invention, are for example the following: brick, pumice, vermiculite, kaoline, dry clay, calcium carbonate, pyrophyllite, dolomite, glass fibers, **plaster** of Paris, talcum, fossil or non-fossil, natural silica, synthetic silica, and metallic oxides. Inert organic additives which can be added. . . .

SUMM Such alicyclic hydroxylated compounds are, for example, the following: cyclohexanol, 3-methyl-cyclohexanol, 3,3,5-trimethyl-cyclohexanol, **menthol**, .alpha.-terpineol, .beta.-terpineol, and .gamma.-terpineol.

SUMM Examples are: 3-methylcyclohexanol, **menthol**, 3,3,5-trimethyl cyclohexanol;

DETD . . . useful for the production of odorant insecticide formulations and comprising DDVP as phosphoric ester, a terpene alcohol (linalol, terpineol, citronellol, **menthol**, 1-octene-3-ol) and/or an **essential oil** (essence of rose wood, essence of curly mint, essence of palmarosa, essence of lavender), an epoxy compound as stabiliser.

DETD
. . . -- -- -- -- -- -- -- --
Citronellol %
-- -- 6 -- -- -- -- -- -- -- -- --
Menthol % -- -- -- 4 -- -- -- -- -- 1 -- --
1-Octene-3-ol
-- -- -- -- -- -- --. . .

DETD
. . . 1-Octanol 5 2.5 -- -- --
2-Octanol -- 2.5 -- -- --
Spearmint oil
-- -- -- 1.0 --
(45-60% **menthol**)
Linalol -- -- -- -- 0.3
(c)
Stabilizer for DDVP
2,4,6-trichloro-
phenol -- -- -- -- 0.3
Epoxidised soya
bean oil. . . .

DETD . . . acid ester, an alcohol compound selected from acyclic hydroxyl compounds or from alicyclic hydroxyl compounds as scent (linalool, terpineol, citronnellol, **menthol**, octenol, rosewood oil, spearmint oil, palmarosa oil or lavender oil), one or two diazenes as principal stabilizer and, in some. . . .

DETD
. . . -- -- -- -- -- -- -- -- --
citronellol
-- -- 5.4 -- -- -- -- -- -- -- -- --
menthol -- -- -- 4.6 -- -- -- -- -- 1 -- --
1-octen-3-ol

-- -- -- -- -- -- -- 2.2. . . -- 0.4 -- -- -- 0.5 -- --

(z") natural essence containing linalool, geraniol and terpineols
(z"') natural essence containing **menthol**
(z"") natural essence containing geraniol and citronellol
(z""') natural essence containing linalool and geraniol.

DETD . . . -- -- -- -- -- -- --
-- --
citronellol
-- -- 5.4 -- -- -- -- -- -- -- -- --
menthol -- -- -- 4.6 -- -- -- -- -- -- -- --
1-octen-3-ol
-- -- -- -- -- -- -- 2.2. . .

DETD . . . -- -- -- -- -- -- --
-- --
citronellol
-- -- 5.4 -- -- -- -- -- -- -- -- --
menthol -- -- -- 4.6 -- -- -- -- -- 1 -- --
1-octen-3-ol
-- -- -- -- -- -- -- 2.2. . .

DETD . . . -- -- 3 1 -- -- 2
-- --
citronellol
-- 5.2 -- -- -- -- -- 5 6.5 -- -- --
menthol -- -- 4.2 -- -- -- -- -- -- -- 3 4
rosewood oil
(z") -- -- -- 6.4 -- --. . .

L12 ANSWER 41 OF 41 USPATFULL

ACCESSION NUMBER:	74:28050 USPATFULL
TITLE:	IMPERFORATE DISPENSER FOR DISPENSING VOLATILE MATTER AS GAS AND/OR VAPOR TO A SURROUNDING ATMOSPHERE AND METHOD FOR FORMING SAME
INVENTOR(S):	Engel, Walter H., Southport, CT, United States
PATENT ASSIGNEE(S):	Porosan Interests, U.S.A., Inc., Fairfield, CT, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 3815828		19740611	
APPLICATION INFO.:	US 1972-276221		19720728	(5)
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	King, Lloyd L.			
LEGAL REPRESENTATIVE:	Fattibene, Arthur T.			
NUMBER OF CLAIMS:	11			
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 1 Drawing Page(s)			
LINE COUNT:	491			

SUMM . . . taught that synthetic resins could, during the formation thereof, be impregnated with a suitable volatile material, as for example, an **essential oil**. This was attained by dispersing the resin in a suitable plasticizer which included a desired **essential oil** which, when gelled by heat, formed a given article, as for example, a sheet or membrane in which the volatile material was intricately incorporated therein. However, when an **essential oil** was subjected to such gelling temperatures there would invariably result a change in the chemical properties of the volatile substance. . .

DETD The medicinal volatiles may include **menthol**, camphor, methyl salicylate, eucalyptus, and others.

DETD . . . bag 30. According to this invention the inner wall portion 31A of the pocket or sachet is formed by a **patch** or piece of water insoluble resin, e.g., a vinyl polymer, co-polymer or derivative thereof, which can be readily attached to. . .

```
=> s menthol (s) patch
L1          160 MENTHOL (S) PATCH

=> s essential oil or aromatic oil or volatile oil
  28 FILES SEARCHED...
L2        61332 ESSENTIAL OIL OR AROMATIC OIL OR VOLATILE OIL

=> s l2 and l1
L3            9 L2 AND L1

=> dup rem
ENTER L# LIST OR (END):l3
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DGENE, DRUGLAUNCH,
DRUGMONOG2, KOSMET, MEDICONF, PHARMAML'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L3
L4            9 DUP REM L3 (0 DUPLICATES REMOVED)

=> d l4 1-9 ibib, kwic

L4   ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2002:462412  CAPLUS
DOCUMENT NUMBER:          137:52365
TITLE:                    Adhesive patch containing decongestants for the usage
                          on clothing
PATENT ASSIGNEE(S):       Labtec Gesellschaft fuer Technologische Forschung und
                          Entwicklung mbh, Germany; Apr Applied Pharma Research
                          S.A.
SOURCE:                   Ger. Offen., 4 pp.
                          CODEN: GWXXBX
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE            APPLICATION NO.  DATE
     ---------------   ----  --------        ---------------  --------
     DE 10063378        A1   20020620        DE 2000-10063378 20001219
     WO 2002049623      A2   20020627        WO 2001-EP14945  20011218
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2002040847      A5   20020701        AU 2002-40847    20011218
PRIORITY APPLN. INFO.:                     DE 2000-10063378 A  20001219
                                           WO 2001-EP14945  W  20011218
REFERENCE COUNT:          12    THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
ST   adhesive patch clothing decongestant essential oil
     respiratory tract disease
IT   79-92-5, Camphene   89-83-8, Thymol   98-55-5, .alpha.-Terpineol
     127-91-3, .beta.-Pinene   138-86-3, Limonene   470-82-6, Eucalyptol
     1490-04-6, Menthol
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (adhesive patch contg. decongestants for usage on clothing)

L4   ANSWER 2 OF 9  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2001:780652  CAPLUS
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DOCUMENT NUMBER: 135:322744
TITLE: Therapeutic antitussive **patch** containing camphor and **menthol** and a liquid or gel organic compound as a carrier
INVENTOR(S): Goon, David J. W.; Rolf, David
PATENT ASSIGNEE(S): Lectec Corporation, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001078691	A1	20011025	WO 2000-US12969	20000512

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-548526 A 20000413
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Therapeutic antitussive **patch** containing camphor and **menthol** and a liquid or gel organic compound as a carrier

AB A vapor permeable adhesive patch is provided wherein the patch includes a porous polymer backing having a front side and a back side. The patch also includes a therapeutic formulation located on the front side of the backing. The backing includes a flexible sheet of water insol. porous material. The therapeutic formulation includes a combination of a medicament useful for relieving coughing, a liq. or gel-like, cosmetically acceptable org. compd. to act as a carrier for the medicament and at least partially masks the odor of the medicament, and a pressure sensitive adhesive. The liq. or gel-like, cosmetically acceptable org. compd. can be a fragrance. For example, a vapor permeable adhesive **patch** formulation contained (by wt.) **menthol** 2.8%, camphor 4.0%, propylene glycol 2.5%, eucalyptus oil 0.7%, grape fragrance 1.0%, glycerin 1.0%, polyethylene oxide 3.0%, water 83.0%, and a pressure sensitive adhesive 2.0%.

ST camphor **menthol essential oil** essence transdermal **patch**; antitussive **patch** camphor **menthol** eucalyptus turpentine oil

IT Natural products, pharmaceutical
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(aloe; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Antitussives
Cotton fibers
Essences
Humectants
Odor and Odorous substances
Perfumes
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Turpentine oil
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in

liq. or gel carrier)

IT Lanolin
Polyamide fibers, biological studies
Polyester fibers, biological studies
Polymers, biological studies
Polyolefin fibers
Polyoxyalkylenes, biological studies
Polyureas
Polyurethane fibers
Polyurethanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Fibers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cellulosic; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Essences
(cherry; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Cherry
Grape
(essence; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Essential oils
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(eucalyptus; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Essences
(grape; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Alcohols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyhydric; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT Drug delivery systems
(transdermal; antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT 76-22-2, Camphor 89-78-1, **Menthol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT 50-70-4, Sorbitol, biological studies 50-81-7, Vitamin C, biological studies 56-81-5, Glycerin, biological studies 57-55-6, Propylene glycol, biological studies 58-95-7, Vitamin E acetate 79-10-7D, Acrylic acid, esters, copolymers 107-21-1, Ethylene glycol, biological studies 112-27-6, Triethylene glycol 112-60-7, Tetraethylene glycol 1406-18-4, Vitamin E 9000-01-5, Gum acacia 9000-30-0, Guar gum 9000-36-6, Karaya gum 9000-40-2, Locust bean gum 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9003-01-4, Poly(acrylic acid) 9003-05-8, Polyacrylamide 9003-39-8, Polyvinyl pyrrolidone 9004-32-4, Carboxymethyl cellulose 9050-36-6, Maltodextrin 11138-66-2, Xanthan gum 24937-72-2, Poly(maleic anhydride) 25322-68-3, Polyethylene oxide 26099-09-2, Polymaleic acid 27119-07-9 66676-63-9, Carboxypropyl cellulose
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor and **menthol** in liq. or gel carrier)

IT 89-83-8, Thymol
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitussive **patch** contg. camphor, **menthol** and thymol in liq. or gel carrier)

L4 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:452852 CAPLUS
DOCUMENT NUMBER: 135:51093
TITLE: Drugs for relieving hemicrania
INVENTOR(S): Yokoyama, Hideakira; Hamamoto, Hidetoshi
PATENT ASSIGNEE(S): Teikoku Seiyaku Co., Ltd., Japan; Rohto Pharmaceutical Co., Ltd.
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001043736	A1	20010621	WO 1999-JP7008	19991214
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1170006	A1	20020109	EP 1999-959803	19991214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: WO 1999-JP7008 W 19991214
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
AB Drugs having an effect of relieving hemicrania contain l-menthol and an **essential oil** exclusively as the active ingredients. More particularly, ointments and patches having an effect of relieving hemicrania to be topically administered for relieving hemicrania, are prepd. by blending l-menthol and an **essential oil** with ointment compns. contg. a water-sol. polymer, a polyhydric alc. and water. An ointment contained polyacrylic acid 1, Na polyacrylate 5, Na CMC 5, gelatins 0.4, polyvinyl alc. 0.2, tartaric acid 0.2, Na edetate 0.1, glycerin 22, Al(OH)3 0.3, Polysorbate 80 0.1, castor oil 0.5, methylparaben 0.1, l-menthol 0.3, peppermint oil 0.2, and distd. water q.s. to 100 %.
ST hemicrania treatment ointment menthol **essential oil**; **patch** hemicrania treatment **menthol essential oil**; peppermint oil menthol ointment migraine treatment

L4 ANSWER 4 OF 9 NAPRALERT COPYRIGHT (C) 2002 BD. TRUSTEES, U. IL.
ACCESSION NUMBER: 1998:5124 NAPRALERT
DOCUMENT NUMBER: J15622
TITLE: D5 **PATCH** TEST REACTIONS TO **MENTHOL** AND PEPPERMINT
AUTHOR: FLEMING C J; FORSYTH A
CORPORATE SOURCE: CONTACT DERM INVEST UNIT, GLASGOW ROYAL INFIRMARY, GLASGOW SCOTLAND
SOURCE: CONTACT DERMATITIS (1998) 38 (6) p. 337-..
DOCUMENT TYPE: (Research paper)
LANGUAGE: ENGLISH
CHARACTER COUNT: 944
TI D5 **PATCH** TEST REACTIONS TO **MENTHOL** AND PEPPERMINT
ORGN Class: DICOT
TYPE OF STUDY (STY): IN HUMANS Classification (CC): ALLERGENIC ACTIVITY
Extract type: **ESSENTIAL OIL**
Dosage Information: EXTERNAL; HUMAN ADULT; FEMALE; CONC USED: 5.0%
Qualitative results: ACTIVE

Comment(s): CASE REPORT DESCRIBING A POSITIVE PATCH TEST. . .
COMPOUND. Chemical name (CN): MENTHOL
Class identifier (CI): MONOTERPENE
ORGN Class: DICOT Family: LABIATAE Genus: MENTHA Species: PIPERITA
Organism part: **ESSENTIAL OIL**
TYPE OF STUDY (STY): IN HUMANS Classification (CC): ALLERGENIC ACTIVITY
Extract type: **ESSENTIAL OIL**
Dosage Information: EXTERNAL; HUMAN ADULT; FEMALE; CONC USED: 1.0%
Qualitative results: ACTIVE
Comment(s): CASE REPORT DESCRIBING A POSITIVE PATCH TEST. . .

L4 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:678501 CAPLUS
DOCUMENT NUMBER: 127:298778
TITLE: Aqueous adhesive tapes
INVENTOR(S): Koide, Michimasa
PATENT ASSIGNEE(S): Lion Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09263546	A2	19971007	JP 1996-301327	19961025
JP 3175607	B2	20010611		

PRIORITY APPLN. INFO.: JP 1996-28594 A 19960123
AB Skin-compatible, aq. adhesive tapes showing enhanced edema-inhibiting activity comprise refrigerants and diuretic essential oils and/or plant exts. An adhesive **patch** contained polyacrylic acid 4.5, poly(sodium acrylate) 1.5, CM-cellulose sodium salt 4.0, glycerin 15.0, 1,3-propanediol 5.0, aluminum hydroxide 0.1, synthetic hydrotarcite 0.06, kaolin 6.0, l-**menthol** 0.2, sage oil 0.006 and purified water to 100 parts.
ST aq adhesive tape **essential oil**; plant ext aq adhesive tape

L4 ANSWER 6 OF 9 USPATFULL
ACCESSION NUMBER: 95:38703 USPATFULL
TITLE: Lice repellant composition
INVENTOR(S): Eini, Meir, Ness Ziona, Israel
Tamarkin, Dov, Jerusalem, Israel
PATENT ASSIGNEE(S): Clilco Ltd., Ness Ziona, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5411992		19950502
APPLICATION INFO.:	US 1993-55986		19930429 (8)

DISCLAIMER DATE: 20100713
RELATED APPLN. INFO.: Continuation of Ser. No. US 1992-902415, filed on 19 Jun 1992, now patented, Pat. No. US 5227163 which is a continuation of Ser. No. US 1991-642806, filed on 18 Jan 1991, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rollins, John W.
LEGAL REPRESENTATIVE: Friedman, Mark M.
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 712
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . 0.070 0.049 0.020
0.014

NELLOL
.alpha.-TERPINEOL 0.080 0.056 0.040
0.028

GERANIOL 0.020 0.014 0.005
0.004

LINALOOL 0.080 0.056 0.020
0.014

MENTHOL 0.150 0.105 0.030
0.021

DIHYDRO 0.800 0.560 0.600
0.420

MYRCENOL
ISOPINO- 0.300 0.210 0.200
0.140

CAMPHEOL
TERPINEN- 0.090 0.063 0.020
. . . 0.400
0.280

RC = Repellency concentration = (1 - T/C) .times. 100
T = Number of lice on the treated **patch**
C = Number of lice on the untreated **patch**
RD = Repellency dosage in mg/cm.sup.2
RC.sub.80 = Concentration giving 80% repellency
RC.sub.50 = Concentration giving 50% repellency
RD.sub.80 =. . .

DETD . . . of lice infestation, containing 50% purified water, 42% alcohol, 2% Diethyl Toluamide, 2% Diethyl Phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was examined in a controlled field study. This study, after receiving the authorization of the Helsinki Committee, was conducted by. . .

DETD The test product, containing 50% purified water, 42% alcohol, 2% Diethyl Toluamide, 2% diethyl phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was provided to the nurses. The product is presented in a spray bottle, equipped with a nozzle of 0.10 ml.. .

CLM What is claimed is:

. . . or an animal, wherein the terpenoid is selected from the group consisting of a terpene-ol other than linalool, terpene ester, **essential oil** containing at least 40% terpene-ol or terpene-ester, cytral, nerol, ionone, dihydrocarvone, and pullegone, wherein the composition does not contain any. . .

. . . of essential oils containing at least 40% terpene-ol or terpene ester, further comprising a fragrance other than the terpene-ol or **essential oil** containing terpene-ol or terpene ester.

. . . an animal susceptible to lice infestation an effective amount to repel but not kill lice of a composition comprising linalool, **essential oil** containing at least 40% terpene-ol or terpene ester, and a terpene aldehyde in a topical carrier.

L4 ANSWER 7 OF 9 USPATFULL
ACCESSION NUMBER: 93:56706 USPATFULL
TITLE: Lice-repellant compositions
INVENTOR(S): Eini, Meir, Ness Ziona, Israel
Tamarkin, Dov, Jerusalem, Israel
PATENT ASSIGNEE(S): Clilco, Ltd., Israel (non-U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION: US 5227163 19930713
APPLICATION INFO.: US 1992-902415 19920619 (7)
RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-642806, filed on 18 Jan 1991, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rollins, John W.
LEGAL REPRESENTATIVE: Kilpatrick & Cody
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 675
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD . . . .beta.-CITRONELLOL 0.070 0.049
0.020
0.014
.alpha.-TERPINEOL 0.080 0.056
0.040
0.028
GERANIOL 0.020 0.014
0.005
0.004
LINALOOL 0.080 0.056
0.020
0.014
MENTHOL 0.150 0.105
0.030
0.021
DIHYDRO 0.800 0.560
0.600
0.420
MYRCENOL ISOPINO- 0.300 0.210
0.200
0.140
CAMPHEOL TERPINEN-4-OL 0.090 0.063
0.020
. . . 0.400
0.280

RC = Repellency concentration = (1 - T/C) .times. 100
T = Number of lice on the treated **patch**
C = Number of lice on the untreated **patch**
RD = Repellency dosage in mg/cm.sup.2
RC.sub.80 = Concentration giving 80% repellency
RC.sub.50 = Concentration giving 50% repellency
RD.sub.80 =. . .
DETD . . . lice infestation, containing 50% purified water, 42% alcohol, 2% % Diethyl Toluamide, 2% Diethyl Phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was examined in a controlled field study. This study, after receiving the authorization of the Helsinki Committee, was conducted by. . .
DETD The test product, containing 50% purified water, 42% alcohol, 2% Diethyl Toluamide, 2% diethyl phthalate, 2% Terpineol, and 2% Styrax **essential oil**, was provided to the nurses. The product is presented in a spray bottle, equipped with a nozzle of 0.10 ml.. .
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L4 ANSWER 8 OF 9 JICST-EPlus COPYRIGHT 2002 JST
ACCESSION NUMBER: 930093460 JICST-EPlus
TITLE: Two Cases of Allergic Contact Dermatitis Caused by Tiger

Balm and Essential Balm.
AUTHOR: KUBO YOJIRO
CORPORATE SOURCE: Kubohifukaiin
SOURCE: Hifu (Skin Research), (1992) vol. 34, no. Suppl 14, pp. 295-300. Journal Code: Z0014B (Fig. 2, Tbl. 2, Ref. 13) ISSN: 0018-1390
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Short Communication
LANGUAGE: Japanese
STATUS: New

AB Two cases of allergic contact dermatitis caused by "Tiger" balm and "Essential" balm are reported. Both patients were **patch** tested with the ointments, with each constituent of the ointments and with related substances. Case 1, which was dermatitis caused by a Tiger balm made in Taiwan, proved to be due to clove oil, cinnamon oil and 1-**menthol**. It was considered that a positive reaction to clove oil and cinnamon oil is caused by eugenol because there was. . . and balsam Peru. There are many products containing the various constituents of Tiger balms and Essential balms. To avoid misleading **patch**-test results, therefore, a table of the **patch**-test materials with the constituents of five Tiger balms made in Taiwan and Singapore, the constituents of four Essential balms made. . .

CT contact dermatitis; **essential oil**; Chinese drug; patch test; case report; human(primates); monocyclic monoterpene

L4 ANSWER 9 OF 9 JICST-EPlus COPYRIGHT 2002 JST
ACCESSION NUMBER: 910088146 JICST-EPlus
TITLE: Allergic contact dermatitis due to peppermint oil.
AUTHOR: SAITO FUMIO; OKA KEIKO
CORPORATE SOURCE: Nihontsuun Kenppo Tokyo Hospital
SOURCE: Hifu (Skin Research), (1990) vol. 32, no. Suppl 9, pp. 161-167. Journal Code: Z0014B (Fig. 6, Tbl. 5, Ref. 6) ISSN: 0018-1390
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article
LANGUAGE: Japanese
STATUS: New

AB Peppermint oil consists of approx. 18 ingrdients, but its main ingredients are **menthol** and menthone. 16 of these components also are contained in spearmint oil which consists principally of carvone and limonene. Many of ointments and plasters highly containing peppermint oil or **menthol** are marketed in Japan. Under such circumstances, allergic contact dermatitis was more frequently caused by the products. Three patients of allergic contact dermatitis from peppermint oil were reported. A further study was undertaken to identify allergens of peppermint oil. **Patch** testing with the products and 24 kinds of ingredients of peppermint oil and spearmint oil was performed in 3 patients.. . . acute dermatitis on the ankle. He applied plasters, Tiger Balm and other ointments for joint pain in the left ankle. **Patch** tests showed positive reactions to the products and ointments, peppermint oil (1%) and **menthol** (1%). Case 2: A 72-year-old female had discoid eczema on the right ankle twenty days after applying a plaster. Simultaneously,. . . for several years. He noticed acute dermatitis on the same lesion after applying Tiger Balm and Eurax G containing crotamiton. **Patch** testing was carried out with some ingedients of Tiger Balm, the products and crotamiton. He showed positive reactions to the. . .

BT allergic disease; immunologic disease; disease; dermatitis; inflammation; skin disease; **essential oil**; oils; adrenal hormone; hormone; immunological reaction; reaction; liquid for external use; liquid preparation; pharmaceutical preparation; integumentary preparation; drug; action and. . .